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CATALOGUE

OF THE

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IN THE

BRITISH MUSEUM.

VOLUME XXI.

LONDON:

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1893.

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CATALOGUE

OF THE

COLUMBÆ, OR PIGEONS,

IN THE

COLLECTION

OF THE

BRITISH MUSEUM.

BY

T. SALVADORI.

LONDON:
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PREFACE.

THE Collection of Pigeons in the British Museum consists of 7359 specimens, referred by the Author to 415 species. Only about one tenth of the species known are unrepresented in the Collection; they belong chiefly to the Austro-Malayan and Polynesian Faunas; whilst of other species the series of specimens are almost complete, having been obtained from the donations of Mr. A. Hume, and especially of Messrs. Godman and Salvin, who were collecting specimens of Pigeons for many years with the view of preparing a completely illustrated Monograph of the Order.

I have again the pleasure of acknowledging the conscientious attention which the Author has given to this work in all its details, and which renders it a worthy companion to the preceding volume of this Catalogue.

ALBERT GÜNTHER,
Keeper of the Department of Zoology.

British Museum (N. H.),
June 30, 1893.

INTRODUCTION.

THE order of Pigeons has been much studied by Ornithologists, and therefore some notes on the literature relating to the subject will not be out of place here.

Between 1808 and 1811 there appeared a splendid work in folio, 'Les Pigeons, par Madame Knip, née Pauline de Courcelles, le texte par C. J. Temminck, tome i. 86 pls., Paris.' This work is beautifully illustrated and contains the descriptions of many new species.

In 1813 Temminck published the 'Histoire naturelle générale des Pigeons et des Gallinacés'; the first volume (pp. i–xvi, 1–499, Amsterdam) contains the descriptions of about 90 species.

A complete account of the Pigeons was published by Vieillot in 1818 in the Article "Pigeon" which formed part of the 26th volume of the 'Nouveau Dictionnaire d'Histoire Naturelle' (pp. 286–404).

Later on, in 1823, Vieillot completed the account of the Pigeons, begun in 1790 by Bonnaterre, in the first volume of the 'Tableau Encyclopédique et Méthodique des trois Règnes de la Nature, Ornithologie,' generally known under the name of 'Encyclopédie Méthodique'; the part written by Bonnaterre extends from page 226 to 258, and the continuation by Vieillot from page 375 to 387.

In 1827 Wagler in the 'Systema Avium' gave an excellent account with full descriptions, in Latin, of the species of the genus *Columba*, 213 in number, besides 16 doubtful species. The volume of the 'Naturalist's Library' devoted to this order and prepared by Selby (1835) is not complete and is rather superficially done.

Between 1838 and 1843 Prévost published, in continuation of Temminck's great work, the second volume of 'Les Pigeons,' containing 60 plates, executed by Madame Knip.

In 1854 Bonaparte published a complete catalogue of the Pigeons in the second volume of the 'Conspectus generum Avium,' pp. 5–96. This is the best work done by Bonaparte, and may be consulted with advantage even at the present time. Other researches on

Pigeons were published by Bonaparte in the "Coup d'Œil sur l'Ordre des Pigeons" (Compt. Rend. Ac. Sc. Paris, xxxix. pp. 869–880, 1072–1078, 1102–1112 (1854); xl. pp. 15–24, 96–102, 204–221 (1855); xliii. pp. 833–839, 942-949 (1856)).

The Trustees of the British Museum published in 1856 the 'List of the Specimens of Birds in the Collection of the British Museum, Part IV. *Columbæ*, pp. 73, by G. R. Gray.' Although in this little volume only the species contained in the British Museum are enumerated, it is most useful, enabling us to make many interesting identifications.

Bonaparte, in 1857, while in a very precarious state of health, published the 'Iconographie des Pigeons,' a companion work to those of Temminck and Prévost. It contains 59 plates, but was unfortunately left unfinished.

About the year 1862, Reichenbach published 'Die vollständigste Naturgeschichte der Tauben, *Columbariæ*,' soon followed by a second part, 'Neu entdeckte Taubenvögel.' The publication of the numerous figures accompanying this work began as early as 1847 (Synopsis Avium, *Columbariæ*), and was continued in the years 1848 (*Columbæriæ*), 1851 (Novitiæ ad Synopsin Avium, *Columbariæ*), and 1862 (Nachweisung, etc.): these illustrations are mostly copies very indifferently executed, and the text is but a poor compilation.

G. R. Gray, in 1871, in the 'Hand-list,' gave a nominal list of all the species then known, 378 in number. In 1873 Schlegel prepared for the 'Muséum des Pays-Bas' the account of the "Aves Columbæ," pp. 1–180, contained in the Leyden Museum. They numbered 2309 specimens, or 249 species *.

After the elimination of duplicates, the Collection in the British Museum numbers 7359 specimens belonging to 415 species. Of these, 112 are represented by typical specimens, besides 47 which are types of species that have been identified with others previously described.

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* Besides the above mentioned works of a general character, I may mention that a full account of the Papuan and Moluccan Pigeons has been given by myself in the third volume of the 'Ornitologia della Papuasia e delle Molucche,' pp. 1–218, that a paper on the African Pigeons has been published by Capt. Shelley ('Ibis,' 1883, pp. 258–330), and that Dr. Wiglesworth has given an account of the Polynesian species in his excellent paper, "Aves Polynesiæ" (Abh. Zool. u. Anth. Ethn. Mus. Dresd. 1891).

The number of species recognized in the present Catalogue is 458, besides 27 of a more doubtful character, which are more or less fully referred to in the body of the work. 42 species are still desiderata in the Collection. 11 have been described for the first time.

As to the classification of Pigeons, I have experienced the same difficulties as in that of the Parrots. It is a well known fact that the Pigeons constitute a very homogeneous order, which does not admit of division into easily definable or sharply defined groups.

Dr. Garrod, in a paper "On some points in the Anatomy of the *Columbæ*" (P. Z. S. 1874, pp. 249-259), has attempted a classification based on anatomical characters, such as the ambiens muscle, the intestinal cæca, the oil-gland, and the gall-bladder, but with the result of forming only the most heterogeneous assemblages: thus *Carpophaga* and *Lopholæmus* are separated from the Fruit-Pigeons or *Treroninæ*, and united with the *Phabinæ* or Ground-Pigeons, while among the *Treroninæ*, with *Treron* and *Ptilopus*, we find *Phlogœnas*, *Starnœnas*, *Geopelia*, and *Goura*!

I think that, for the present, the safest and most natural mode of arranging them is offered by their external characters, and I propose a system which is not very different from those propounded in 1872 by Sundevall (Meth. nat. Av. disp. Tentamen, pp. 97–101) and in 1880 by Sclater ('Ibis,' 1880, pp. 406, 407).

Owing to the want of a recent general Catalogue or Monograph my task has not been easy; and much of the good that may be found in my work is owing to the help I have received from many friends, especially Mr. Salvin, with whom I worked out the whole of the American species, Dr. Sharpe, Dr. Sclater, Mr. Seebohm, Prof. Newton, Dr. Oustalet, Dr. Reichenow, and Graf von Berlepsch. I have also to thank Canon Tristram, Mr. Ridgway and the Authorities of the Smithsonian Institution, Mr. Allen, Dr. Hartlaub, Dr. Finsch, Dr. Meyer, Mr. Wiglesworth, Prof. Barboza du Bocage, Dr. Schauinsland, Dr. W. Blasius, the Hon. W. Rothschild, Mr. Hartert, and the Authorities of the Museums of Frankfort and of Milan, for the loan of interesting specimens or for useful information.

T. SALVADORI.

Turin, Zoological Museum,
June 1893.

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CATALOGUE

OF

BIRDS.

Order V. COLUMBÆ.

Characters. Rostrum swollen at the tip, which is hard and convex, its basal portion covered by a soft skin, in which the nostrils open, overhung by an incumbent valve. Feet constantly with four toes; the hallux on the same level with the rest; the anterior toes without membrane at the base. Tarsi covered laterally and behind with hexagonal scales, and more or less feathered on the upper part, but sometimes entirely naked.

Palate schizognathous; nostrils schizorhinal; basipterygoid processes (except in *Didi*) present and placed medially. Angle of the mandible not produced and recurved, but abruptly truncated. Dorsal vertebræ heterocœlous. Sternum variously shaped, generally with four deep posterior notches, the inner pair of which may be converted into foramina; sometimes (*Geophaps*) the sternum is very narrow and has only two notches; when there are four notches the external lateral processes thus formed are, as in *Gallinæ*, much shorter than the internal ones.

Furcula (except in *Didi*) well developed.

Feathers without aftershaft or with a rudimentary one. Spinal feather-tract well defined on a considerable part of the neck by lateral bare tracts, and divided into a fork on the interscapular region; primaries eleven; fifth secondary absent; tail-feathers from 12 to 20.

Oil-gland nude or absent.

Cæca generally rudimentary, not functional; gall-bladder mostly absent (present in *Carpophaga*, *Lopholæmus*).

Carotids both present (*Garrod*).

Hallux connected with the flexor longus hallucis and not with flexor perforans digitorum: the two deep plantar tendons are not free, but united with a vinculum.

The Pigeons build a nest of a very simple structure, composed of twigs, and generally placed in a tree. The eggs are generally two, and constantly white; some species lay only one egg. The newly-hatched pulli are naked and altogether helpless, and for a time they are nourished with a secretion from the well-developed crop.

The Pigeons are phytophagous and cosmopolitan; about 470 species are known.

The affinities of the Pigeons are rather obscure, but, according to Huxley, they are closely allied to the *Gallinæ*, and in some respects also to the Owls and the Vultures.

Key to the Suborders.

a. Wings adapted for flight; furcula fully developed; basipterygoid processes present and placed medially ..... 1. **COLUMBÆ**, p. 2.

b. Wings rudimentary, not adapted for flight; furcula much reduced; basipterygoid processes absent. (*Huxley*, *P. Z. S.* 1867, p. 434.) ..... 2. **DIDI**, p. 628.

Suborder I. COLUMBÆ.

Key to the Families.

a. Nostrils linear and parallel to the edges or tomia of the upper mandible; bill not hooked.

a'. Head not crested, or if crested with the barbs of the feathers joined together.

a''. Tarsus rather short, generally shorter than the middle toe. (Tree-Pigeons.)

a'''. Soles very broad, each toe with the skin expanded on the sides; tail with 14 feathers (except in the genera *Phabotreron* and *Hemiphaga* with 12, and in the subgenus *Thoracotreron* with 16); tarsus feathered more than half its length ..... 1. **Treronidæ**, p. 3.

b'''. Soles normal, not very broad; only the hind toe with the skin prominently expanded on the sides; tail with 12 feathers ..... [p. 240. 2. **Columbidæ,**

b''. Tarsus equal or longer than the middle toe; tail-feathers from 12 to 20. (Ground-Pigeons.) ..... [p. 372. 3. **Peristeridæ,**

b'. Head crested, the feathers of the crest with the barbs separated; tarsus covered all over with small hexagonal scales: feathers of the tail 16 ..... 4. **Gouridæ**, p. 619.

b. Nostrils oblique; bill hooked, very high and toothed or serrated near the tip of the lower mandible, which is truncated; tarsus longer than the middle toe, and very imperfectly scutellated on the upper part .... [p. 626. 5. **Didunculidæ,**

Family I. TRERONIDÆ.

Key to the Subfamilies.

a. Bill rather thick; general plumage (except in *Phabotreron*) mostly green, and generally a yellow band on the wings.. 1. *TRERONINÆ*, p. 3.

b. Bill rather thin; no conspicuous yellow band on the wings at the tips of the greater upper wing-coverts.

a'. Bill rather short, not very distensible at base; size small, rarely exceeding that of *C. livia*; plumage mostly green, but generally much variegated with patches of different colours.... [p. 70. 2. *PTILOPODINÆ*,

b'. Bill rather long, very distensible at base, and with a very short dertrum (except in *Hemiphaga*); size rather large, not inferior to that of *C. livia*; general plumage not much variegated ..... [p. 171. 3. *CARPOPHAGINÆ*,

Subfamily I. TRERONINÆ.

Key to the Genera.

a. General plumage green; tail-feathers 14.

a'. Bill soft at the base; the rhamphotheca of the upper mandible not reaching the feathers of the forehead.

a''. Tail more or less wedge-shaped, with the central tail-feathers more or less acuminate, in some species much longer than the lateral ones ..... [p. 4. 1. SPHENOCERCUS,

b''. Tail almost even, or with the outer feathers very little shorter than the others; third quill always scooped on the inner web.
b'''. Tibial feathers conspicuously yellow.
*a*⁴. First three primaries not acuminate; forehead in some species more or less naked ..... 2. VINAGO, p. 15.
*b*⁴. First three primaries more or less acuminate..... 3. CROCOPUS, p. 26.
c'''. Tibial feathers greenish or whitish. 6. OSMOTRERON, p. 38.
b'. Rhamphotheca of the upper mandible reaching the feathers of the forehead.
c''. Third primary normal, not scooped about the middle of the inner web.... 4. BUTRERON, p. 32.
d''. Third primary deeply scooped about the middle of the inner web..... 5. TRERON, p. 33.
b. General plumage chocolate-brown; tail of 12 feathers, and much rounded..... 7. PHABOTRERON, p. 66.

1. SPHENOCERCUS.

Type.

Sphenurus, *Sw.* (*nec* Sphenura, *Licht.* 1823) *Class. B.* ii. p. 348 (1837) ..... S. oxyurus.
Sphenocercus, *G. R. Gr. List Gen. B.* p. 57 (1840) (=Sphenurus, *Sw.*).
Rhombura, *Glog. Gem. Hand- u. Hilfsb. d. Naturg.* i. p. 360 (1842) ..... S. oxyurus.
Sphenaena, *Bp. Ann. Sc. Nat.* (4) i. p. 139 (1854).
Sphenoena, *Bp. Consp. Gen. Av.* ii. p. 8 (1854).
Sphenotreron, *Bp. in litt.*; *id. Consp. Gen. Av.* ii. p. 8 (1854); *id. Compt. Rend.* xxxix. p. 873 (1854).

Range. From Northern India to Formosa and Japan, and through Burma, to Sumatra, Borneo, and Java.

Key to the Species.

a. Central tail-feathers long and acuminate; third and fourth primaries broadened about the middle of the inner web; tail underneath with a broad grey band at the tip.
a'. Central tail-feathers very long, narrow, and grey; greater wing-coverts broadly edged with yellow ..... *apicicauda*, p. 5.
b'. Central tail-feathers broad, of a russet-colour, except at the base, which is grey; greater upper wing-coverts with no yellow edges whatever ..... *oxyurus*, p. 7.
b. Central tail-feathers not very long and not acuminate.
c'. Under surface of the tail uniform light grey; third and fourth primaries very little broadened about the middle of the inner webs.... *sphenurus*, p. 8.

d'. Under surface of the tail black, with a grey margin at the tip; third and fourth primaries sinuated about the middle of the inner webs.

a''. Middle of the abdomen decidedly yellow .. *korthalsi*, p. 11.

b''. Middle of the abdomen yellowish white.

a'''. Tail above partly black.

*a*⁴. Maroon colour of the shoulders of the male slightly washing the mantle.... *sieboldi*, p. 12.

*b*⁴. Maroon colour of the shoulders of the male not extending on the mantle, which is olive-green like the rest of the back; female like that of the preceding species ..... *sororius*, p. 13.

b'''. Tail above olive-green, with no black.

*c*⁴. Smaller; wing 7·6 to 7·1 inches: crown of the male suffused with ochreous buff or orange colour ..... *formosæ*, p. 13.

*d*⁴. Larger; wing 8·2 to 7·7 inches: crown of the male olive-green, with no ochreous-buff tinge..... *permagnus*, p. 14.

1. Sphenocercus apicicauda.

Vinago sphenura, *Hodgs.* (*nec Vig.*) *Gray's Zool. Misc.* p. 85 (1844).

Vinago apicauda, *Hodgs. MS.*

Treron apicauda, *G. R. Gr. List Gallinæ B.M.* p. 4 (1844); *Blyth, J. A. S. B.* xiv. 2, p. 854 (descr. princeps) (1845); *Gray, Hodgs. Cat. M. & B.* p. 121 (1846); *Blyth, Ann. & Mag. N. H.* xix. p. 50 (1847); *G. R. Gr. Gen. B.* App. p. 23 (1849); *id. List B. Brit. Mus.* Columbæ, p. 16 (1856); *Wall. Ibis*, 1865, pp. 374, 396; *id. J. f. O.* 1866, p. 276; *Tristr. Cat. Coll. B.* p. 45 (1889).

Sphenocercus apicauda, *Blyth, Cat. B. Mus. A. S. B.* p. 230, n. 1392 (1849); *G. R. Gr. Hand-list*, ii. p. 224, n. 9106 (1870).

Sphenocercus apicaudus, *Bp. Consp. Av.* ii. p. 8 (1854); *id. Compt. Rend.* xxxix. p. 873 (1854), xl. p. 216, n. 9 (1855); *id. Coup d'œil Ordr. Pig.* pp. 5, 54, n. 9 (1855); *id. Icon. Pig.* pl. 4 (1857); *Gray, Cat. Hodgs. Coll.* 2nd ed. p. 65 (1863); *Jerd. B. of Ind.* iii. p. 454 (1864); *Blyth, Ibis*, 1867, p. 148; *Beav. Ibis*, 1868, p. 373; *Bulger, Ibis*, 1869, p. 169 (Sikkim); *Wald. in Blyth's B. Burm.* p. 144 (1875); *Hume & Davis. Str. Feath.* vi. p. 415 (1878); *Hume, Str. Feath.* viii. p. 109 (1879), xi. p. 292 (1888); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 279 (1890).

Sphenocercus phasianellus, *Licht. Nomencl. Av.* p. 82 (1854) (Himalaya); *Bp. Compt. Rend.* xliii. p. 833 (1856) (descr. princeps); *Blyth, Ibis*, 1867, p. 148.

Sphenocercus apicicauda, *Rchnb. Tauben*, i. p. 111 (1862); *Oates, B. Brit. Burm.* ii. p. 305 (1883); *Salvad. Ann. Mus. Civ. Gen.* (2) vii. p. 424 (1889).

Treron phasianellus, "*Blyth*," *Wall. Ibis*, 1865, p. 374; *id. J. f. O.* 1866, p. 276.

Treron apicicauda, *Gieb. Thes. Orn.* iii. p. 649 (1877).

? Sphenocercus korthalsi, *Tiraut* (*nec Temm.*), *Bull. Com. Agr. et Ind. Cochinch.* (3) i. p. 141, n. 251 (1879).

Adult male. General plumage green, tinged with yellow on the

head *, rump, upper tail-coverts, and underparts; hind neck with a slight greyish tinge; upper breast tinged with russet or rufous; tibial feathers green edged with white; under tail-coverts cinnamon, edged with buffy white on the outer webs; greater wing-coverts olive-green, broadly edged with yellow; tertiaries olive-yellowish, edged with yellow on the outer webs; primaries and secondaries black, with narrow yellow edges: under surface of the wing lead-grey; central tail-feathers very long and acuminate, ashy with the base green, the others ashy with a broad black band across the middle; tail below black, with a broad apical grey band: "legs bright crimson-pink; bill pale blue; irides, inner ring bright ultramarine-blue, outer ring pink" (*Davison*). Total length 16 inches, wing 6·6, tail about 7, bill 0·7, tarsus 0·93.

Female. Similar to the male, but smaller, and has the breast green with no rufous tinge; the under tail-coverts are of a cinnamon colour mixed with grey, and have the outer webs more extensively white.

Both male and female have the inner webs of the third and fourth primaries broadened about the middle.

Hab. Kumaon, Nepal, Assam, and Burmese countries as far as Tenasserim.

a. ♂ ad. sk.	Kumaon (*Strachey*).	India Museum [P.].
b, *c*. ♂ ad. sk.	Nepal (*B. H. Hodgson*).	India Museum [P.].
d, *e*. ♂ ad. sk.	Nepal.	B. H. Hodgson, Esq. [P.].
f, *g*. ♂ ♀ ad. sk.	Nepal.	B. H. Hodgson, Esq. [P.]. (Types of species.)
h–*p*. ♂ ad. et imm. sk.	Native Sikkim, Jan., March, July (*L. Mandelli*).	Hume Coll.
q–*c'*. ♂ ♀ ad. sk.	Sikkim, Jan., March–June, Sept., Dec. (*L. Mandelli*).	Hume Coll.
d'–*k'*. ♂ ♀ ad. sk.	Darjeeling.	Hume Coll.
l'. ♂ ad. sk.	Darjeeling.	Salvin-Godman Coll.
m'. ♀ ad. sk.	Assam (*M'Clelland*).	India Museum.
n'. ♂ ad. sk.	Suddya, April (*J. Cockburn*).	Hume Coll.
o'–*s'*. ♂ ♀ ad. sk.	Manipur, Feb., April, May (*A. O. H.*).	Hume Coll.
t', *u'*, *v'*. ♂ ♀ ad. sk.	Tonghoo Hills, March (*R. G. W. R.*).	Tweeddale Coll.
w'. ♂ ad. sk.	Tonghoo Hills.	E. W. Oates, Esq. [C.].
x'. ♀ ad. sk.	Kollidoo, Feb. (*W. Davison*).	Hume Coll.
y'. ♂ ad. sk.	Salween District, Feb. (*W. Davison*).	Hume Coll.
z', *a''*. ♂ ♀ ad. sk.	Mooleyit, Feb. (*W. Davison*).	Hume Coll.

* Blyth and Jerdon mention a russet tinge on the crown, which is wanting in all the specimens I have seen, and I cannot account for their statement.

2. Sphenocercus oxyurus.

Columba oxyura, *Reinw. MS.*; *Temm. Pl. Col.* 240 (livr. 41, 1823); *Desm. Dict. Sc. Nat.* xl. p. 365 (1826); *Wagl. Syst. Av.* Columba, sp. 6 (1827); *Less. Tr. d'Orn.* p. 475 (1831); *Less. Compl. de Buff., Ois.* viii. p. 25 (1837); *id. op. cit.* 2nd ed. p. 275 (1838); *Prév. & Knip, Pig.* ii. pl. 30 (1838).

Treron oxyura, *Steph. Gen. Zool.* xiv. 1, p. 274 (1826); *G. R. Gr. Gen. B.* ii. p. 467, n. 13 (1844); *Rchnb. Syn. Av.* Columbariæ, ff. 1352 (♀), 1353 (♂) (1847); *Schleg. De Dierent.* p. 211 (1864); *Wall. Ibis*, 1865, pp. 373, 374, 396; *id. J. f. O.* 1866, p. 276; *Schleg. Mus. P.-B.* Columbæ, p. 62 (1873); *Salvad. Ucc. Born.* p. 286 (1874); *Gieb. Thes. Orn.* iii. p. 652 (1877); *Rosenb. Malay. Archip.* p. 108 (1878); *Vorderm. N. T. N. I.* xlv. p. 397 (1885), xlvi. p. 235 (1886); *Büttik. Not. Leyd. Mus.* ix. p. 75 (1886); *Pelz. & Lor. Ann. Naturh. Hofmus.* iii. p. 42 (1888); *Tristr. Cat. Coll. B.* p. 45 (1889).

Vinago oxyura, *Cuv. Règne An.* 2nd ed. i. p. 492 (1829); *Selby, Natural. Libr., Pigeons*, p. 98, pl. 2 (1835); *Hartl. Syst. Verz. Brem.* p. 98 (1844).

Sphenurus semitorquatus, *Sw. Class. B.* ii. p. 348 (1837).

Sphenocercus oxyurus, *G. R. Gr. List Gen. B.* p. 57 (1840); *Bp. Consp. Av.* ii. p. 8 (1854); *id. Compt. Rend.* xxxix. p. 873 (1854), xl. p. 216, n. 8 (1855); *id. Coup d'œil Ordr. Pig.* pp. 5, 54, n. 8 (1855); *Rchnb. Tauben*, i. p. 110, t. 243. ff. 1352, 1353 (1862); *Jerd. B. of Ind.* iii. p. 454 (1864); *G. R. Gr. Hand-list*, ii. p. 224, n. 9107 (1870); *Hume, Str. Feath.* viii. p. 67 (1879); *Salvad. Ann. Mus. Civ. Gen.* xiv. p. 243 (1879) (Sumatra); *Nichols. Ibis*, 1883, p. 255 (Sumatra); *Vorderm. N. T. N. I.* xlix. p. 412 (1889); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 279 (1890); *Hartert, Kat. Vogelsamml.* p. 191 (1891).

Sphenocercus oxyura, *Blyth, Cat. B. Mus. A. S. B.* p. 230, n. 1393 (1849).

Adult male. Olive-green; a greyish band on the upper mantle; an obsolete russet collar at the base of the neck; sides and under surface of the wing lead-colour; flanks with a yellow crescentic band joining the patch of the same colour on the middle of the abdomen; lower feathers of the flanks green with yellow edges; tibial feathers green; longer under tail-coverts pale cinnamon, the basal ones green with yellow tips, and the median green with the outer webs yellow; upper wing-coverts olive-green, uniform with the back; primary-coverts and quills slate-black, secondaries edged with lead-colour; inner secondaries or tertials olive-green on the outer webs, lead-colour on the inner ones; tail grey, with a broad black band in front of the apical grey band, the central feathers broad but acuminate and of russet-grey colour, pure grey at the base; tail underneath black, with a broad apical grey band; the russet colour of the central feathers shows through also below: "irides cobalt-blue, with external ring of pink; skin round the eye bright green; upper mandible cobalt-blue, tip bright green; legs bright scarlet"

(*H. O. Forbes*). Total length about 12 inches, wing 6·3, tail 5·5, bill 0·87, tarsus 0·9.

Female (*adult*?). Similar to the male, but apparently without the russet band across the crop-region.

Young male. Wants the grey band on the upper mantle and the russet band across the crop-region; the under tail-coverts are mostly yellow, have some green on the inner webs, and scarcely any cinnamon tinge; the central tail-feathers are greenish grey with no russet tinge. (*Mus. Genoa.*)

This species, like *S. apicicauda*, has the third and fourth primaries broadened about the middle of the inner web.

Hab. Java, Sumatra, and Borneo.

The locality Malacca rests on insufficient evidence.

a. Ad. sk.	Java.	Gould Coll.
b, *c*. ♂ ad. et ♀ imm. sk.	Mt. Sago, Sumatra, Sept. (*C. Bock*).	Tweeddale Coll.
d–*h*. Ad. sk.	Sumatra (*C. Bock*).	Tweeddale Coll.
i. Ad. sk.	Sumatra (*C. Bock*).	Salvin-Godman Coll.
k. Skeleton.	Java.	Purchased.

3. Sphenocercus sphenurus.

Vinago sphenura, *Vig. P. Z. S.* 1831, p. 173; *Gould, Cent. Himal. B.* pl. 57 (1831).

Vinago? cantillans, *Blyth, J. A. S. B.* xii. p. 166 (1843).

Treron sphenura, *G. R. Gr. List of Gallinæ B. M.* p. 4 (1844); *id. Gen. B.* ii. p. 467, n. 14 (1844); *Blyth, J. A. S. B.* xiv. 2, p. 853 (1845); *Rchnb. Syn. Av.* Columbariæ, f. 1355 (1847) (*ex Gould*); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 15 (1856); *Wall. Ibis*, 1865, p. 374; *id. J. f. O.* 1866, p. 276; *Sclat. P. Z. S.* 1867, p. 821 (specim. alive); *Schleg. Mus. P.-B.* Columbæ, p. 60 (1873); *Sclat. P. Z. S.* 1876, p. 464; *Gieb. Thes. Orn.* iii. p. 652 (1877); *Sclat. List Vert. An.* 8th ed. p. 445 (1883); *Tristr. Cat. Coll. B.* p. 46 (1889); *Seeb. Birds Japan. Emp.* p. 163 (1890).

Ptilonopus turturoides, *Hodgs. in Gray's Zool. Misc.* p. 85 (1844).

Ptilonopus macronotus, *Hodgs. in Gray's Zool. Misc.* p. 85 (1844).

Treron cantillans, *Blyth, J. A. S. B.* xiv. 2, p. 854 (1845) (cage variety); *Bp. Consp. Av.* ii. p. 9 (1854); *Rchnb. Tauben*, i. p. 111 (1862); *Tytler, Ibis*, 1868, p. 202 (Simla).

Sphenocercus cantillans, *Blyth, Cat. B. Mus. A. S. B.* p. 230, n. 1391 (1849); *Bp. Icon. Pig.* pl. 5 (1857); *Irby, Ibis*, 1861, p. 233; *Blyth, Ibis*, 1865, p. 45.

Sphenocercus sphenurus, *Bp. Consp. Av.* ii. p. 8 (1854); *id. Compt. Rend.* xxxix. p. 873 (1854), xl. p. 216, n. 10 (1855); *id. Coup d'œil Ordr. Pig.* pp. 5, 54, n. 10 (1855); *Rchnb. Tauben*, i. p. 111, t. 243. f. 1355 (1862); *G. R. Gr. Cat. Hodgs. Coll. B. M.* 2nd ed. p. 66 (1863); *Jerd. B. of Ind.* iii. p. 453 (1864); *Blyth, Ibis*, 1867, p. 148; *Beav. Ibis*, 1868, p. 372; *Pelz. J. f. O.* 1868, p. 36; *Brooks, Ibis*, 1869, p. 60 (Binsur); *Bulger, Ibis*, 1869, p. 169; *G. R. Gr. Hand-list*, ii. p. 223, n. 9103 (1870); *Hume & Henders. Lahore to Yark.* p. 270 (1873); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 6 (1873); *Hume, Nests & Eggs*, iii. p. 494 (1875); *id. Str. Feath.* iii. p. 163

(1875); *Brooks, Str. Feath.* iii. p. 255 (1875); *Wald. in Blyth's B. Burm.* p. 144 (1875); *Hume & Davis. Str. Feath.* vi. p. 415 (1878); *Hume, Str. Feath.* viii. p. 109 (1879); *Scully, Str. Feath.* viii. p. 339 (1879); *Salv. Cat. B. Strickl. Coll.* p. 555 (1882); *Oates, B. Brit. Burm.* ii. p. 304 (1883); *Marsh. Ibis*, 1884, p. 421; *Cordeaux, Ibis*, 1888, p. 225 (Cashmere); *Hume, Str. Feath.* xi. p. 292 (1888); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 279 (1890); *Sharpe, Sc. Res. Sec. Yark. Miss., Aves*, p. 114 (1891).

Sphenocercus minor, *Brooks, Str. Feath.* iii. p. 255 (1875); *Hume, ibid.* (note) (1875).

Adult male. Head, neck, and lower plumage greenish yellow, the crown and breast washed with rufous; mantle greenish grey; back olive-green washed with maroon; lower back, rump, and upper tail-coverts olive-green; sides grey, with the edges of the feathers green; middle of the abdomen yellowish white; feathers of the flanks dark green, with broad yellowish-white edges; longer under tail-coverts buff or pale cinereous, the basal ones green broadly tipped with yellowish white; smaller upper wing-coverts maroon, the median and the greater ones olive-green, the latter with narrow yellow edges; primaries and secondaries slate-black, with narrow yellow edges; tertials olive-green; wing underneath lead-grey; tail above olive-green, but the outer feathers more and more tinged with grey and with a subapical obsolete blackish band; tail below uniform grey: "legs, feet, and claws crimson-pink; bill dull smalt-blue, horny portion pale skimmed-milk-blue; orbital skin pale smalt; irides with an inner ring of pale bright blue and an outer ring of buffy pink" (*Davison*). Total length 13 inches, wing 7, tail 6, bill 0·7, tarsus 0·9.

Female. Differs from the male in being of a darker green and in having no maroon on the wings and back, which are olive-green uniform with the rest of the upper parts; there is no rufous tinge on the crown and breast, and the longer under tail-coverts are yellowish white centred with ashy olive-green.

Hab. Kashmir, along the Himalayas and Burmese countries as far south as Mooleyit in Tenasserim.

a, b. ♂ ♀ ad. sk.	Kashmir (*Dr. Bellew*).	India Museum.
c, d. ♂ ad. sk.	Agrore, May.	Hume Coll.
e, f. ♂ ♀ ad. sk.	Koteghur, March, April.	Hume Coll.
g. ♀ ad. sk.	Murree.	Salvin-Godman Coll.
h–n. ♂ ♀ ad. sk.	Simla, July, Aug., Sept. (*A. O. H.*).	Hume Coll.
o, p, q. ♂ ♀ ad. sk.	Simla, July to Sept. (*R. C. Beavan*).	Tweeddale Coll.
r–u. ♂ ♀ ad. et ♂ imm. sk.	Dehra Dhoon, Jan.	Hume Coll.
r, w. ♂ ♀ ad. sk.	Naini Tal, Aug., Sept.	Hume Coll.
x. ♀ ad. sk.	Almorah, June.	Hume Coll.
y. ♀ imm. sk.	Mussooree, Aug.	Hume Coll.
z. ♀ ad. sk.	Duralee, May.	Hume Coll.
a'. ♂ ad. sk.	Bhagaratti Valley, May (*W. E. Brooks*).	Hume Coll.

b', *c'*, *d'*. ♂ ♀ ad. sk.	Kumaon (*Capt. Strachey*).	India Museum [P.].
e'. ♂ juv. sk.	Kumaon, Oct.	Hume Coll.
f'. Imm. sk.	Kumaon.	Tweeddale Coll.
g'–*n'*. ♂ ♀ ad. et imm. sk. et st.	Nepal.	B. H. Hodgson, Esq. [P.].
o', *p'*. ♀ ad. et imm. sk.	Nepal.	B. H. Hodgson, Esq. [P.]. (Types of *P. turturoides*, Hodgs.)
q'–*v'*. ♂ ♀ ad. et imm. sk.	Nepal (*B. H. Hodgson*).	India Museum [P.].
w', *x'*. ♂ ad. sk.	Native Sikkim, June, Nov. (*L. Mandelli*).	Hume Coll.
y'–*h''*. ♂ ♀ ad. et imm. sk.	Sikkim, Feb., June, July, Oct., Nov. (*L. Mandelli*).	Hume Coll.
i'', *k''*. ♂ ad. sk.	Sikkim.	Salvin-Godman Coll.
l'', *m''*. ♂ ♀ ad. sk.	Darjeeling.	Hume Coll.
n'', *o''*. ♂ ♀ ad. sk.	Kalitimla, June (*A. Anderson*).	Seebohm Coll.
p'', *q''*. ♂ ♀ ad. sk.	Bootan.	India Museum [P.].
r''. ♂ ad. sk.	Assam.	Tweeddale Coll.
s'', *t''*. ♂ ad. sk.	Shillong, July (*J. Cockburn*).	Hume Coll.
u''. ♀ ad. sk.	Shillong, May (*A. W. Chennell*).	Tweeddale Coll.
v''. ♂ ad. sk.	Dilkoushah, Cachar (*J. Inglis*).	Hume Coll.
w''. ♂ ad. sk.	Manipur, Feb. (*A. O. H.*).	Hume Coll.
x''. ♂ ad. sk.	Karen Hills, Aug. (*R. G. W. R.*).	Tweeddale Coll.
y''. ♂ ad. sk.	Karennee, Feb. (*R. G. W. R.*).	Tweeddale Coll.
z''. ♀ ad. sk.	Pegu, Feb.	E. W. Oates, Esq. [C.].
a^3. ♀ ad. sk.	Tonghoo District, March.	E. W. Oates, Esq. [C.].
b^3. ♂ imm. sk.	Salween, Feb. (*W. Davison*).	Hume Coll.
c^3. ♀ ad. sk.	Kollidoo, Feb. (*W. Davison*).	Hume Coll.
d^3. ♂ ad. sk.	Kyouk-nyat, Feb. (*W. Davison*).	Hume Coll.
e^3, *f*^{3}. ♂ ♀ ad. sk.	Mooleyit, Jan., Feb. (*W. Davison*).	Hume Coll.
	Var. *cantillans* (Blyth).	
g^3, *h*^{3}. ♂ ad. sk.	No locality (*A. Grote*).	Gould Coll.
i^3. ♀ ad. sk.	Nepal.	B. H. Hodgson, Esq. [P.].

4. Sphenocercus korthalsi.

Columba sphenura, *Knip & Prév.* (*nec Vig.*) *Pig.* ii. pl. 49 * (1838-43).

Columba korthalsi, *Temm.* (ubi ?) *fide G. R. Gr. List Gallinæ B. M.* p. 4 (1844).

Treron korthalsi, *G R. Gr. List Gallinæ B. M.* p. 4 (1844); *id. Gen. B.* ii. p. 467, n. 16 (1844); *id. List B. Brit. Mus.* Columbæ, p. 16 (1856) (Sumatra); *Wall. Ibis*, 1865, p. 374 (Java); *id. J. f. O.* 1866, p. 276; *Schleg. Mus. P.-B.* Columbæ, p. 60 (1873) (Java); *Gieb. Thes. Orn.* iii. p. 651 (1877).

Sphenocercus korthalsi, *Bp. Consp. Av.* ii. p. 9 (1854) (Malasia, Sumatra); *id. Compt. Rend.* xxxix. p. 873 (1854), xl. p. 216, n. 11 (1855); *id. Coup d'œil Ordr. Pig.* pp. 5, 54, n. 11 (1855); *Rchnb. Tauben*, i. p. 111 (1862), ii. p. 182, *Nov. Suppl.* t. v. f. 58 (1862) (*ex Knip*); *Jerd. B. of Ind.* iii. p. 454 (1864); *G. R. Gr. Hand-list*, ii. p. 224, n. 9105 (1870); *Hume, Str. Feath.* viii. p. 67 (1879); ? *Salvad. Ann. Mus. Civ. Gen.* xiv. p. 243 (1879) (Sumatra); *Vorderm. N. T. N. I.* xlix. p. 412 (1889), li. p. 400 (1890); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 279 (1890); *Hartert, Kat. Vogelsamml.* p. 191 (1891)

Vinago korthalsi, *S. Müll., fide Schleg. Mus. P.-B.* Columbæ, p. 60 (1873).

Sphenocercus etorques, *Salvad. Ann. Mus. Civ. Gen.* xiv. p. 244 (1879) (Sumatra); *Rchnw. & Schal. J. f. O.* 1882, p. 117.

Adult male. Head, neck, and underparts green with a yellow tinge; mantle green with a slight grey tinge; back, scapulars, rump, and upper tail-coverts olive-green; across the breast a rufous tinge; middle of the abdomen pure yellow; flanks dark green, with the edges of the feathers yellow; tibial feathers dark green, fringed with yellow; the longer under tail-coverts pale cinnamon, the shorter or basal ones dark green, with broad yellow edges; smaller upper wing-coverts maroon; the median and the greater wing-coverts olive-green; primaries and secondaries brown-black, narrowly margined with yellow; tertiaries, like the scapulars, dark olive-green; wings underneath dark lead-grey; tail above dark olive-green, the three or four outer feathers with a black subapical band, broader on the outermost one; tail underneath dark grey, nearly black, with the tips of the feathers grey: "iris dark (!); bill lead-colour; feet red" (*Wallace*). Total length 12·5 inches, wing 6·5, tail 5·5, bill 0·75, tarsus 0·8. (*Mus. Genov.*)

Female. Similar to the male, but it wants the maroon colour on the upper wing-coverts, which are entirely olive-green, and the rufous tinge across the breast.

The specimens in Beccari's collection from Mount Singalan, W. Sumatra (*S. etorques*, Salvad.), were most probably not fully adult birds.

Hab. Java and Sumatra.

* In this plate the rufous band on the breast is too narrow, and the middle of the abdomen too white.

a, b. ♂ ♀ ad. st. et sk.	Sumatra.	Leyden Museum.
c. ♂ ad. sk.	W. Java.	A. R. Wallace, Esq. [C.].
d. ♂ imm. sk.	W. Java (*A. R. Wallace*).	Gould Coll.

5. Sphenocercus sieboldi.

Columba sieboldii, *Temm. Pl. Col.* pl. 549 (livr. 93, 1835); *Less. Compl. de Buff., Ois.* viii. p. 24 (1837); *id. op. cit.* 2nd ed. p. 275 (1838); *Knip & Prév. Pig.* ii. pl. x. (1838–43); *Blakist. Ibis*, 1862, p. 329.

Treron sieboldii, *G. R. Gr. Gen. B.* ii. p. 467, n. 15 (1844); *id. List of Gallinæ B. M.* p. 4 (1844); *Rchnb. Syn. Av.* Columbariæ, f. 1354 (1847); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 15 (1856); *Schleg. De Dierent.* p. 211 (1864); *Wall. P. Z. S.* 1865, pp. 374, 396; *id. J. f. O.* 1866, p. 276; *Elwes, P. Z. S.* 1873, p. 667; *Schleg. Mus. P.-B.* Columbæ, p. 61 (pt.) (1873); *v. Mart. Preuss. Exp. Ost-As., Zool. Th.* i. p. 370 (1876); *Gieb. Thes. Orn.* iii. p. 652 (1877); *Blakist. & Pryer, Ibis*, 1878, p. 227; *iid. Tr. As. Soc. Jap.* viii. p. 205 (1880), x. p. 129 (1882); *Blakist. Chrysanth.* 1882, p. 522, 1883, p. 28; *id. Amend. List B. Jap.* p. 44 (1884); *Jouy, Pr. U.S. Nat. Mus.* vi. p. 314 (1883); *Stejneg. Pr. U.S. Nat. Mus.* ix. p. 639 (1887); *id. Zeitschr. f. ges. Orn.* iv. p. 170 (1887); *id. Pr. U.S. Nat. Mus.* x. p. 417 (1887); *Seeb. Ibis*, 1888, p. 236; *Tristr. Cat. Coll. B.* p. 46 (1889); *Seeb. B. Jap. Emp.* p. 163 (1890).

Columba (Vinago) sieboldi, *Temm. & Schleg. Faun. Jap., Aves*, p. 102, t. 60 D (1847).

Sphenocercus sieboldi, *Bp. Consp. Av.* ii. p. 9 (1854); *id. Compt. Rend.* xxxix. p. 873 (1854), xl. p. 216, n. 12 (1855); *id. Coup d'œil Ordr. Pig.* pp. 5, 54, n. 12 (1855); *Rchnb. Tauben*, i. p. 111 t. 243. f. 1354 (*ex Pl. Col.*), t. 245. ff. 2591-92 (*ex Fauna Jap.*) (1862); *Swinh. Ibis*, 1868, pp. 122, 311; *G. R. Gr. Hand-list*, ii. p. 223, n. 9104 (1870); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 279 (1890); *Hartert, Kat. Vogelsamml.* p. 191 (1891).

Vinago sieboldi, *Swinh. Ibis*, 1863, pp. 209, 397; *id. P. Z. S.* 1863, p. 338; *Whitely, Ibis*, 1867, p. 204; *Elwes, P. Z. S.* 1873, p. 651; *Swinh. & Blakist. Ibis*, 1875, p. 452.

Similar to *S. sphenurus*, from which it differs in having the tail less wedge-shaped and much darker, nearly black underneath, with a narrow grey margin at the tip of the feathers; besides, the centre of the abdomen is much whiter, and both male and female have all the under tail-coverts yellowish white, centred with olive-green; the yellow edges of the greater wing-coverts and secondaries are broader but paler.

Male. Head, neck, and breast greenish yellow, crown and breast washed with rufous, and smaller upper wing-coverts maroon, which colour slightly tinges also the back. Total length about 13 inches, wing 7·3, tail 3·75, bill 0·76, tarsus 0·9.

Female. Smaller than the male, greener on the head, neck, and breast, with no rufous tinge on the crown and breast, and with no maroon colour on the smaller upper wing-coverts and on the mantle.

Hab. Japan.

a, *b*. ♂ ♀ ad. st. et sk.	Japan.	Leyden Museum.
c. ♂ ad. sk.	Japan.	C. Maries, Esq. [C.].
d, *e*, *f*. ♂ ♀ ad. sk.	Nagasaki, Nov.	F. Ringer, Esq. [C.].
g, *h*. ♂ ♀ ad. sk.	Nagasaki.	Tweeddale Coll.
i. ♀ ad. sk.	Nagasaki.	Gould Coll.
k, *l*. ♂ ♀ ad. sk.	Yokohama (*Pryer*).	Salvin-Godman Coll.
m, *n*. ♂ ♀ ad. sk.	Yokohama, Feb., Nov. (*Snow*).	H. E. Dresser, Esq. [P.].
o. ♀ ad. sk.	Hakodadi, Oct. (*H. Whitely*).	Tweeddale Coll.

6. Sphenocercus sororius.

Sphenocercus formosæ ♂, *Swinh. Ibis*, 1866, p. 122 (*nec* Treron formosæ, *Ibis*, 1863, p. 396).
Sphenocercus sororius, *Swinh. Ibis*, 1866, pp. 311, 406; *id. P. Z. S.* 1871, p. 396; *Elwes, P. Z. S.* 1873, p. 667; *David & Oust. Ois. Chine*, p. 380 (1877).
Treron chœroboatis, *Swinh. Ibis*, 1866, pp. 313, 406; *G. R. Gr. Hand-list*, ii. p. 222, n. 9085 (1870).
Sphenocercus sonorius (*errore*), *G. R. Gr. Hand-list*, ii. p. 224, n. 9109 (1870).
Treron sieboldi, pt., *Schleg. Mus. P.-B.* Columbæ, p. 61 (1873).
Treron sonoria (*errore*), pt., *Gieb. Thes. Orn.* iii. p. 652 (1877).
Treron sororius, *Stejneg. Pr. U.S. Nat. Mus.* ix. p. 639 (1887); *Seeb. Ibis*, 1888, p. 236.
Treron sororia, *Seeb. B. Jap. Emp.* p. 163 (1890).

Scarcely different from *S. sieboldi*. The *male* may be distinguished by the colour of the mantle, which is green, with no maroon tinge whatever, and scarcely different from the lower back, rump, and upper tail-coverts.

The *female* is very similar to that of *S. sieboldi*.

Hab. Formosa.

a, *b*. ♂ ♀ ad. sk.	Formosa, Feb. (*R. Swinhoe*).	Seebohm Coll. (Types of species.)
c-*f*. ♂ ♀ ad. sk.	Formosa, March, April (*R. Swinhoe*).	Tweeddale Coll.
g. ♀ ad. sk.	Formosa, Dec. (*R. Swinhoe*).	Hume Coll.
h, *i*. ♂ ad. sk.	Formosa.	R. Swinhoe, Esq. [C.].
k, *l*. ♂ ♀ ad. sk.	Formosa.	Salvin-Godman Coll.

7. Sphenocercus formosæ. (Plate I.)

Treron formosæ, *Swinh. Ibis*, 1863, p. 396 (♀); *id. P. Z. S.* 1863, p. 338; *Wall. Ibis*, 1865, p. 374; *id. J. f. O.* 1866, p. 276; *Swinh. Ibis*, 1865, p. 540, 1866, p. 312 (♂); *id. P. Z. S.* 1871, p. 396; *Elwes, P. Z. S.* 1873, p. 667; *David & Oust. Ois. Chine*, p. 379 (1877); *Stejneg. Pr. U.S. Nat. Mus.* ix. p. 638 (1887).
Sphenocercus formosæ, *Swinh. Ibis*, 1865, p. 678; *G. R. Gr. Hand-list*, ii. p. 224, n. 9108 (1870).
Treron sonoria (*err.*), pt., *Gieb. Thes. Orn.* iii. p. 652 (1877).
Treron formosæ, pt., *Seeb. Ibis*, 1888, p. 235.
Treron formosana, *Seeb. B. Jap. Emp.* p. 164 (1890).

Adult male. Olive-green, yellower on the face, throat, and breast; crown ochreous buff; upper mantle with a slight greyish tinge; back olive-green with scarcely a tinge of maroon; middle of the abdomen yellowish white; feathers of the flanks green, with broad yellowish-white edges on both webs; under tail-coverts yellowish white, centred with olive-green, the longer ones washed with pale buff; shoulders or lesser wing-coverts maroon, extending faintly in a broken semicircle across the back; median upper wing-coverts olive-green; quills black, secondaries and greater wing-coverts with narrow yellow margins; tertials olive-green; wings underneath lead-colour; tail above uniform olive-green, below black, with a greyish narrow band at the tip: "bill, basal two thirds cobalt-blue, apical pale, with a tinge of yellowish; bare skin round the eye bluish grey; iris comprising a bluish-grey ring round pupil, then a narrow black ring, then a pearl-grey ring, and lastly a broad black ring; legs madder-pink, with pale yellowish soles and blackish-brown claws" (*Swinhoe*). Total length 12·5 inches, wing 7·7, tail 5, bill 0·7, tarsus 1·1.

Female. Olive-green, with no ochreous-buff colour on the upper part of the head, and no maroon colour on the shoulders or smaller upper wing-coverts.

Hab. Formosa, in the mountains.

a, b. ♂ ♀ ad. sk.	Formosa, Aug., Oct. (*R. Swinhoe*).	Seebohm Coll. (Types of species.)
c. ♂ ad. sk.	Formosa, Feb.	R. Swinhoe, Esq. [C.].
d, e. ♂ ♀ ad. sk.	Formosa, Feb., April (*R. Swinhoe*).	Tweeddale Coll.
f. ♂ ad. sk.	Formosa, Feb. (*R. Swinhoe*).	Hume Coll.
g. ♀ ad. sk.	Formosa, Feb. (*R. Swinhoe*).	Seebohm Coll.

8. Sphenocercus permagnus.

Treron sieboldi, *Seeb.* (*nec Temm.*), *Ibis*, 1887, p. 179 (Loo-choo Islands).

Treron permagna, *Stejneg. Pr. U.S. Nat. Mus.* ix. 1886, p. 637 (1887); *id. Zeitschr. f. ges. Orn.* iv. p. 170 (1887); *id. Pr. U.S. Nat. Mus.* x. p. 418 (1887); *Seeb. B. Jap. Emp.* p. 164 (1890).

Treron formosæ, pt., *Seeb. Ibis*, 1888, p. 235 (Loo-choo Islands).

Adult male. Similar to *S. formosæ*, but larger, and with no ochreous-buff tinge on the crown, and no maroon tinge whatever on the back; under tail-coverts yellowish white on the edges, without the least trace of buff. Wing from 8·2 to 7·7 inches. (*Seebohm Coll.*)

Female. The female is very much like that of *S. formosæ*, only larger and of darker olive-green colour.

Hab. Loo-choo Islands.

a. [♀] ad. sk.	Loo-choo Islands.	H. Pryer [C.].
b. ♀ ad. sk.	Okinaawa Shima, Loo-choo Islands, Feb. (*Holst*).	Seebohm Coll.

2. VINAGO.

	Type.
Vinago, *Cuv. Règn. An.* i. p. 457 (1817) (=Colombars, *Levaill.*); (cf. *Sundev. K. Sv. Vet.-Akad.* 1857, p. 55).	V. waalia.
Phalacrotreron, *Bp. Consp. Av.* ii. p. 6 (1854); *id. Compt. Rend.* xxxix. p. 872 (1854)	V. delalandei.

Range. Africa, from Senegambia on the west, and from Abyssinia on the east, to the Cape, and also Madagascar.

Key to the Species.

a. Chest bright yellow ..... *waalia*, p. 15.
b. Chest not bright yellow, but olive-yellow or olive-grey.
  a'. No grey collar at the base of the hind neck; forehead feathered.
    a''. Bill very thick and short; general olive-grey colour very dark ..... *crassirostris*, p. 17.
    b''. Bill moderate; general olive-grey colour lighter; thighs bright yellow mottled with black ..... *australis*, p. 18.
  b'. A grey collar at the base of the hind neck.
    c''. Tail grey, with a lighter grey apical band; forehead more or less naked, in some specimens (very old males?) the nudity extends so as to form a kind of frontal shield..... *calva* *, p. 20.
    d''. Tail above olive-yellow like the back, with a whitish-green apical band.
      a'''. Head, neck, and chest olive-yellow.
        *a*⁴. Smaller; wing 6·15 to 5·65 inches: apical tail-band narrower ..... *wakefieldi*, p. 23.
        *b*⁴. Larger; wing 7·27 inches: apical tail-band broader ..... *schalowi*, p. 24.
      b'''. Head, neck, and chest ashy olive in the adult birds, tinged with yellowish in younger birds..... *delalandei*, p. 24.

1. Vinago waalia.

Waalia, *Bruce, Trav. Abyss.* v. p. 186.
Columba waalia, *Gm. Bruce's Reisen Uebers. v. Cuhn*, v. ii. *Zusätze*, p. 31 (1791); *id. Uebers. von Volkm.* v. 5, pp. 188, 190, t. 38 (1791); *Meyer's Neueste Zool. Entd. in Neu-Holl. u. Afrika*, p. 128 (1793); *Bechst. Lath. Ueb.* iv. p. 387 (1811).
Waalia Pigeon, *Lath. Gen. Syn. Suppl.* ii. p. 269 (1802); *Bechst. Uebers.* ii. p. 642 (1794).

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* Columba phasianella, *Lefevre* (*nec Temm.*), *Voy. Abyss.* vii. p. 142 (1845–50); *Heugl. J. f. O.* 1862, p. 306.

An undescribed second species of "Colombar" from Abyssinia, possibly *Vinago calva*.

Columba abyssinica, *Lath. Ind. Orn. Suppl.* p. lx (1802); *Temm. & Knip, Pig.* i. p. 131, pl. 9 (*nec* ♀ pl. 8) (1808-11); *Temm. Hist. Nat. Pig.* pp. 65, 443 (1813); *Vieill. Nouv. Dict.* xxvi. p. 393 (♂ *nec* ♀) (1818); *id. Enc. Méth.* p. 378, pl. 238. f. 3 (1823); *id. Gal. des Ois.* i. p. 332, pl. 195 (1825); *Desm. Dict. Sc. Nat.* xl. p. 368 (1826); *Less. Tr. d'Orn.* p. 476 (part.) (1831); *Rüpp. Neue Wirbelth.* p. 67 (1835-40); *Sund. K. Sv. Vet.-Ak. Handl.* 1852, p. 55, n. 276; *Hartm. J. f. O.* 1863, p. 468, 1864, p. 228.

Colombar à epaulettes violettes, *Levaill. Ois. d'Afr.* vi. pl. 276 (1808).

Vinago abyssinica, *Cuv. Règn. An.* i. p. 457 (1817); *Steph. Gen. Zool.* xi. 1, p. 111 (1819); *Sw. B. W. Afr.* ii. p. 202 (1837); *Hartl. Syst. Verz. Brem.* p. 98 (1844); *Rüpp. Syst. Uebers.* p. 100, n. 360 (1845); ? *Verr. Rev. et Mag. Zool.* 1851, p. 422 (Gaboon).

Columba humeralis, *Wagl.* (*nec Temm.*) *Syst. Av.* Columba, sp. 2 (♂ *nec* ♀) (1827).

Treron abyssinica, *G. R. Gr. List Gallinæ*, p. 3 (1844); *id. Gen. B.* ii. p. 467, n. 9 (1844); *Rchnb. Syn. Av.* Columbariæ, ff. 1345-46 (1847); *Sclat. Contr. Orn.* 1852, p. 126; *Hartl. Beitr. Orn. W.-Afr.* p. 37 (1852); *id. J. f. O.* 1854, p. 205; *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 15 (1856); *Hartl. Syst. Orn. W.-Afr.* p. 193 (1857); *Brehm, Habesch*, pp. 221, 370 (1863); *Heugl. J. f. O.* 1864, p. 264 (var.); ? *Layard, B. S. Afr.* p. 255 (1867); *Schleg. & Poll. Rech. Faun. Madag.* p. 117 (1868); *Blanf. Geol. & Zool. Abyss.* p. 418 (1870); *Heugl. Peterm. Geogr. Mitth.* 1869, p. 415; *Schleg. Mus. P.-B.* Columbæ, p. 48 (1873) (Abyssinia and Senegambia!); *Salv. Cat. B. Strickl. Coll.* p. 556 (1882); ? *Verbury, Ibis*, 1886, p. 18 (Peninsula of Aden!).

Phalacrotreron abyssinica, *Bp. Consp. Av.* ii. p. 7 (1854); *id. Compt. Rend.* xxxix. p. 873 (1854), xl. p. 216, n. 6 (1858); *id. Coup d'œil Ordr. Pig.* pp. 4, 54, n. 6 (1855); *Rchnb. Tauben*, i. p. 108, ii. p. 181 ff. 1345-46 (1862); *Antin. Cat.* p. 87 (1864); *G. R. Gr. Hand-list*, ii. p. 224, n. 9115 (1870); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 6 (1873).

Geopelia humeralis, *Heugl.* (*nec Gould*) *Syst. Uebers.* p. 49 (1856).

Treron habessinica, *Heugl. J. f. O.* 1862, p. 294.

Treron waalia, *Finsch & Hartl. Vög. Ost-Afr.* p. 533 (1870); *Finsch & Jesse, Tr. Zool. Soc.* vii. p. 288 (1870); *Heugl. Orn. N.O.-Afr.* i. 2, p. 817 (1871); *Antin. & Salvad. Ann. Mus. Civ.* iv. p. 492 (1873); *Heugl. Orn. N.O.-Afr.* ii. Nachtr. p. clxviii (1875); *Hartl. Abh. nat. Ver. Brem.* vii. p. 117 (1881) (Lado); *Sclat. & Hartl. P. Z. S.* 1881, p. 173 (Socotra); *Shell. Ibis*, 1883, p. 265; *Sharpe, Journ. Linn. Soc., Zool.* xvii. p. 436 (1884); *Salvad. Ann. Mus. Civ. Gen.* (2) i. p. 206 (1884); *Shell. Ibis*, 1885, p. 414 (Somali-land); *Salvad. Ann. Mus. Civ. Gen.* (2) vi. p. 302 (1888); *Hartert, Kat. Vogelsamml.* p. 191 (1891).

Phalacrotreron waalia, *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 280 (1890).

Adult male. Head, neck, and upper breast ashy olive; back, rump, upper tail-coverts, scapulars, and innermost secondaries olive; breast bright yellow; sides olive-grey; abdomen whitish buff; thighs buff, more or less tinged with yellow; under tail-coverts with broad white-buff edges, the centres of the smaller feathers being dark grey tinged with olive and of the longer ones chestnut;

smaller and median wing-coverts, except the innermost olive ones, rich vinous; remainder of the wings blackish brown; outer median wing-coverts, the greater ones, and secondaries edged with yellow on their outer webs; primaries with narrow yellowish edges on the outer webs; under surface of the wings and axillaries leaden grey; the under wing-coverts slightly tinged with green; tail above with the basal two thirds of all but the two centre feathers slate-black, and with a broad leaden-grey apical band, the centre feathers entirely leaden grey; tail underneath black, with a broad apical grey band: "iris blue, with an outer rim of salmon-pink" (*Jesse*), "white yellow" (*Antinori*), "vinous red" (*Ragazzi*); "bill bluish grey, red at the base" (*Jesse*), "vinous red at the base" (*Ragazzi*); "legs and feet pinkish yellow" (*Jesse*). Total length about 12 inches, wing 6·10, tail 4·5, bill 0·62, tarsus 0·85.

Female. Like the male, but somewhat smaller.

Hab. N.E. Africa, Somali-land, Socotra, and through the Equatorial Region to Senegambia *.

a. Ad. sk.	Africa.	Sir E. Sabine [P.].
b. Ad. sk.	Abyssinia.	Hume Coll.
c, *d*. ♂ ♀ ad. sk.	Efat, Abyssinia, April (*Harris*).	India Museum [P.].
e. Ad. sk.	Abyssinia (*Harris*).	India Museum [P.].
f. ♂ ad. sk.	Near Rarayguddy, Senafé Pass, Feb.	W. T. Blanford, Esq. [P.].
g. Ad. sk.	Near Senafé, May (*W. Jesse*).	Tweeddale Coll.
h. ♀ ad. sk.	Rarayguddy, May (*W. Jesse*).	Tweeddale Coll.
i. Ad. sk.	Bogos (*Esler*).	Salvin-Godman Coll.
k, *l*, *m*. Ad. sk.	Anseba R. (*Esler*).	Shelley Coll.
n. Ad. sk.	Lado (*Emin Pasha*).	Shelley Coll.
o. Ad. sk.	Jur Gattas, Nov.	F. Bohndorff, Esq. [C.].
p–*u*. ♂ ♀ ad. sk.	Socotra, March (*Balfour*).	Shelley Coll.
v, *w*, *x*. ♂ ♀ ad. sk.	Socotra, March (*Balfour*).	British Association [P.].

2. Vinago crassirostris.

? Columba sylvestris species ex insula Sancti Thomæ, *Marcgr. Hist. Bras.* p. 213.

? Columba viridis insulæ Sancti Thomæ, *Briss. Orn.* i. p. 147 (1760).

? Pigeon vert de l'ile de Saint-Thomas, *Buff. Hist. Nat. Ois.* ii. p. 528 (1771).

? S. Thomas's Pigeon, *Lath. Syn.* ii. 2, p. 631, n. 22 (1781).

? Columba s. thomæ, *Gm. S. N.* i. p. 778, n. 46 (1788); *Lath. Ind. Orn.* ii. p. 600, n. 24 (1790); *Bonn. Enc. Méth.* i. p. 239 (1790); *Vieill. N. D.* xxvi. p. 392 (pt.) (1818); *Wagl. Syst. Av.* Columba, sp. releg. i. (1827); *Strickl. Ann. & Mag. N. H.* xix. p. 44 (note) (1847) †; *A. & E. Newt. Ibis*, 1859, p. 374.

* I have not seen specimens from Senegambia.

† I have very little doubt that Strickland was right when he remarked (*l. c.*) that *C. st. thomæ*, Gm., is most probably the same as *T. crassirostris*, Fraser.

Treron crassirostris, *Fraser, P. Z. S.* 1843, p. 35; *G. R. Gr. Gen. B.* ii. p. 467, n. 11 (1844); *Allen & Thoms. Exp. Niger*, ii. pp. 42, 506 (1848) (Rollas Isl.); *Fraser, Zool. Typ.* pl. 60 (1849) (St. Thomas Isl.); *Rchnb. Syst. Av. Novit.* p. 1, f. 2487 (1851) (*ex Fraser*); *Hartl. J.f. O.* 1854, p. 205; *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 66 (1856); *Hartl. Syst. Orn. W.-Afr.* p. 192 (1857); ? *id. J.f. O.* 1861, p. 265 (Gaboon); *Sclat. P. Z. S.* 1865, p. 871; *Finsch & Hartl. Vög. Ostafr.* p. 536 (1870); *Bocage, J. Sc. Lisb.* xi. p. 252 (1887) (St. Thomas); *Sousa, J. Sc. Lisb.* xi. p. 152 (1887); *Bocage, ibid.* p. 213 (1888).

Phalacrotreron crassirostris, *Bp. Consp. Av.* ii. p. 6 (1854); *id. Compt. Rend.* xxxix. p. 873 (1854), xl. p. 216, n. 3 (1855); *id. Coup d'œil Ordr. Pig.* pp. 4, 54, n. 3 (1855); *Bp. Icon. Pig.* pl. 2 (1857); *Rchnb. Tauben*, i. p. 107 (1862), ii. p. 181, t. 244. f. 2487; *Suppl.* pl. v. f. 53 (*ex Bp.*) (1862); *G. R. Gr. Hand-list*, ii. p. 224, n. 9114 (1870).

Treron abyssinica, *Hartl.* (*nec Gm.*) *J.f. O.* 1861, p. 266 (St. Thomé); *Sousa, J. Sc. Lisb.* xii. pp. 151, 152 (1888).

Treron nudirostris, pt., *Schleg. Mus. P.-B.* Columbæ, p. 47 (1873); *Gieb. Thes. Orn.* iii. p. 651 (1877).

Treron calva, pt., *Keulem. N. T. D.* iii. p. 397 (1866) (Rolla branca); *Schleg. & Poll. Rech. Faun. Madag.* p. 117 (1868) (S. Thomas, but not Prince Isl.); *Shell. Ibis*, 1883, p. 267.

Treron macrorhyncha (*errore* ?), *Sclat. List Vert. An.* 8th ed. p. 445 (1883).

Adult male. Bill very thick and short; head, neck, and breast dark grey with an olive tinge; back, rump, upper tail-coverts, and wings dark olive; lower abdomen, flanks, and tibial feathers yellow, the feathers of the flanks dark olive along the centre; upper wing-coverts near the bend of the wing dark purple; a pale yellow band at the tip of the greater wing-coverts; primary-coverts and quills blackish, the latter with a narrow yellow edge; tertials dark olive like the back; under wing-coverts and quills underneath lead-grey, the former with dark olive edges; tail dark grey, the central feathers tinged with olive towards the base of the edges, the lateral ones black about the middle; tail underneath black, with a broad grey apical band: "iris bluish white; bill grey at the tip, dark red at the base; feet yellow" (*F. Newton*). Total length about 12 inches, wing 6·5, tail 4, bill 0·7, tarsus 0·95.

Hab. Islands of St. Thomas and Rollas, W. Africa.

a. Ad. st.	St. Thomas Isl. (*Capt. Thomson*).	Zool. Soc. Coll. (Type of species.)
b. ♂ ad. sk.	St. Thomas Isl. (*F. Newton*).	Prof. B. du Bocage [P.].

3. Vinago australis.

Palumbus viridis madagascariensis, *Briss. Orn.* i. p. 142, pl. xiv. f. 2 (1760).

Columba australis, *Linn. Mant.* p. 526 (1771); *Müll. Syst. Nat. Suppl.* p. 131, n. 356 (1776); *Lath. Ind. Orn.* ii. p. 604, n. 41 (1790); *Bechst. Uebers.* iv. p. 382 (1811); *Shaw, Nat. Misc.* pl. 709 (1805); *Temm. & Knip, Pig.* pl. 3 (1808); *Temm. Hist. Nat. Pig.* pp. 43, 440 (1813); *Vieill. N. D.* xxvi. p. 390 (1818); *Desm.*

Dict. Sci. Nat. xl. p. 365 (1826); *Less. Tr. d'Orn.* p. 475 (1831) *id. Compl. de Buff., Ois.* viii. p. 274 (1837); *id. op. cit.* 2nd ed. p. 274 (1838); *Verr. Cat. Coll. Rivoli*, p. 29 (1846); *Cass. Pr. Philad. Acad.* 1864, p. 248.

Pigeon Ramier verd de Madagascar, *D'Aubent. Pl. Enl.* 111.

Founingo, part., *Buff. Hist. Nat. Ois.* ii. p. 540 (1771).

Madagascar Pigeon, var. A, *Lath. Gen. Syn.* ii. 2, p. 641 (1783); *Bechst. Uebers.* ii. p. 611 (1794).

Columba madagascariensis, var. *β*, *Gm. S. N.* i. 2, p. 779 (1788).

Colombar à épaulettes violettes, femelle, *Levaill. Ois. d'Afr.* vi. pl. 277 (1808).

Columba abyssinica, part., *Temm. Hist. Nat. Pig.* pp. 65, 443 (♀) (1813); *Vieill. N. D.* xxvi. p. 393 (♀) (1818); *id. Enc. Méth.* i. p. 378 (♀) (1823); *Less. Tr. d'Orn.* p. 476 (part.) (1831).

Vinago australis, *Cuv. Règn. An.* i. p. 457 (1817); *Steph. Gen. Zool.* xi. 1, p. 115 (1819); *Bp. Consp. Av.* ii. p. 7 (1854); *id. Compt. Rend.* xxxix. p. 873 (1854), xl. p. 216, n. 7 (1855); *id. Comp d'œil. Ordr. Pig.* pp. 5, 54, n. 7 (1855); *Hartl. J. f. O.* 1860, p. 161; *id. Beitr. Faun. Madag.* p. 65 (1861); *Rchnb. Tauben*, i. p. 109, t. 240 *b.* ff. 3371-72 (1862); *Sclat. P. Z. S.* 1863, p. 167; *Roch & E. Newt. Ibis*, 1863, p. 167; *E. Newt. ibid.* p. 454; *Pollen, N. T. D.* i. p. 318 (1863); *Grand. Rev. et Mag. Zool.* 1867, p. 418; *Sousa, Mus. Nac. Lisb.* Columbæ, p. 6 (1873); *Hartl. Vög. Madag.* p. 259 (1877); *Poll. Rech. Faun. Madag.* i. pp. 144, 198, 201 (1877); *Milne-Edw. & Grand. Hist. Madag.* xii. p. 470, pl. cxc. f. 1, pls. cxci., cxcii. (1855).

Columba waalia, part., *Vieill. Gal. des Ois.* i. p. 332 (♀) (1825).

Treron australis, *Steph. Gen. Zool.* xiv. 1, p. 274 (1826); *G. R. Gr. Gen. B.* ii. p. 467, n. 8 (part.) (1844); *Rchnb. Syn. Av.* Columbariæ, p. 2, f. 1347 (1847); *Hartl. Zeitschr. f. Zool. Zoot. u. Palæozool.* i. p. 158 (1848); *G. R. Gr. Gen. B.* App. p. 23 (1849); *Schleg. P. Z. S.* 1866, p. 424; *Poll. & Schleg. Rech. Faun. Madag.* p. 117 (1868); *G. R. Gr. Hand-list*, ii. p. 224, n. 9110 (1870); *Finsch & Hartl. Vög. Ostafr.* p. 535 (note) (1870); *Schleg. Mus. P.-B.* Columbæ, p. 48 (1873); *Bartl. P. Z. S.* 1875, p. 67; *Gieb. Thes. Orn.* iii. p. 650 (1877); *Shell. Ibis*, 1883, p. 267; *Sibree, Ibis*, 1891, p. 564.

Columba humeralis, part., *Wagl. Syst. Av.* Columba, sp. 2 (♀) (1827).

Colombar vert, *Sganz. Not. Madag.* p. 39 (1840).

Adult male. Head, neck, and breast yellowish green; rest of the upper parts olive, with a greyish cast on the back; sides grey; flanks dark olive, edged with primrose-yellow; tibial feathers primrose-yellow, tipped with blackish olive; under tail-coverts cinnamon, broadly edged with whitish, the basal ones olive, edged with yellowish white; smaller wing-coverts, near the bend of the wing, vinaceous purple; on the wing an oblique pale yellow band formed by the tip of the greater wing-coverts; primary-coverts and quills blackish, the latter with narrow yellowish outer edges; tertials olive like the back; under wing-coverts grey with a greenish cast; axillars and quills underneath grey; tail grey, central feathers uniform, the lateral ones black about the middle, with the outer edge grey, and with a broad grey apical band: "iris light blue; beak horn-colour, basal half lake-pink; legs, feet, and

claws yellow" (*Newton*). Total length 14·2 inches, wing 6·75, tail 4·3, culmen 0·55, tarsus 1·1.

Female. Like the male.

Young birds have the under tail-coverts more or less greenish in the centre.

Hab. Madagascar.

a. ♂ ad. sk.	S.E. Madagascar.	Shelley Coll.
b. ♂ ad. sk.	N.W. Madagascar.	Van Dam [C.].
c. ♀ ad. sk.	Madagascar.	Purchased.

4. Vinago calva.

Columba calva, *Temm. & Knip, Pig.* i. p. 35, pl. 7 (bad) (1808) (Loango or Angola); *Temm. Hist. Nat. Pig.* i. pp. 63, 442 (1813); *Vieill. N. D.* xxvi. p. 390 (1818); *id. Enc. Méth.* i. p. 378, pl. 238. f. 4 (1823); *Desm. Dict. Sc. Nat.* xl. p. 367 (1826); *Wagl Syst. Av.* Columba, sp. 3 (1827).

Vinago calva, *Steph. Gen. Zool.* xi. 1, p. 117 (1819); *Cuv. Règn. An.* (2nd ed.) i. p. 492 (1829).

Treron calva, *Steph. Gen. Zool.* xiv. p. 273 (1826); *G. R. Gr. Gen. B.* ii. p. 467, n. 10 (1844); *Rchnb. Syn. Av. Novit.* Columbariæ, f. 3370 (1851); *Hartl. J. f. O.* 1854, p. 205, 1855, p. 361 (Gold Coast); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 14 (1856); *Hartl. Syst. Orn. W.-Afr.* p. 192 (1857); *id. J. f. O.* 1861, p. 266 (Bissao); *Keulem. N. T. D.* iii. p. 396 (1866) (pt., Prince's Isl.); *Dohrn, P. Z. S.* 1866, p. 329 (Prince's Isl.); *Bocage, Jorn. Sc. Lisb.* 1867, n. ii. p. 144, n. v. p. 46 (1868); *Schleg. & Poll. Rech. Faun. Madag.* p. 117 (1868); *Sharpe, Ibis*, 1869, p. 194 (Fantee); *id. P. Z. S.* 1869, p. 570 (Angola), 1870, p. 147 (Angola); *Finsch & Hartl. Vög. Ost-Afr.* p. 539, note (1870); *Shell. & Buckl. Ibis*, 1872, p. 290 (Gold Coast); *Garrod, P. Z. S.* 1873, pp. 468, 639; *Sharpe, ibid.* p. 715; *Ussher, Ibis*, 1874, p. 70 (Gold Coast, Sierra Leone, Lagos); *Garrod, P. Z. S.* 1874, pp. 256, 257; *Sharpe, P. Z. S.* 1874, p. 306 (Bulama, Bissagos Isl.); *Rchnw. J. f. O.* 1874, p. 388 (Cameroon and Gaboon), 1875, p. 48; *Monteiro, Angola and Congo*, ii. p. 169 (1875); *Bocage, J. f. O.* 1876, pp. 316, 434; *Rchnw. J. f. O.* 1877, pp. 7, 14 (Loango); *Bocage, Jorn. Sc. Lisb.* vii. p. 94 (1879) (Angola), viii. p. 68 (1880) (Caconda); *id. Orn. Angola*, p. 378 (1881); *Salv. Cat. B. Strickl. Coll.* p. 556 (1882); ? *Sclat. List Vert. An.* 8th ed. p. 445 (1883); *Shell. Ibis*, 1883, p. 267 (part.); *Rochebr. Faun. Sénég.* p. 263 (1884) (Senegambia); *Sharpe, Journ. Linn. Soc., Zool.* xvii. p. 436 (1884) (Equatorial Africa); *Hartert, J. f. O.* 1886, p. 604 (Niger Region); *Hartl. Zool. Jahrb.* ii. p. 329 (1886) (Equatorial E. Africa); *Bocage, J. Sc. Lisb.* xi. p. 252 (1887); *Rchnw. J. f. O.* 1887, pp. 50 (Kagehi), 302 (Congo); *Sousa, J. Sc. Lisb.* xii. p. 43 (Prince's Isl.), pp. 101, 227 (Angola) (1887–88); *Tristr. Cat. Coll. B.* p. 45 (1889) (Cape Coast Castle); *Rchnw. J. f. O.* 1890, p. 109 (Cameroon); *Hartert, Kat. Vogelsamml.* p. 191 (1891); *Rchnw. J. f. O.* 1891, p. 373 (Togoland), 1892, p. 15 (Victoria Njansa), p. 179 (Cameroon).

Vinago nudirostris, *Sw. B. W. Afr.* ii. p. 205 (with fig. of the beak) (1837) (Senegal); *Hartl. Nachtr. Syst. Verz.* p. 16, n. 178 (1846); *Gord. Contr. Orn.* 1849, p. 12 (Cape Coast Castle); *Verr. Rev. et Mag. de Zool.* 1851, p. 421 (Gaboon); *Cass. Pr. Ac. Philad.* 1859, p. 143.

Vinago australis, *Jard. & Selb.* (*nec Linn.*), *Ill. Orn.* pl. 81 (bad) (1825–43).

Treron australis, part., *G. R. Gr. List Spec. B. Brit. Mus.* Gallinæ, p. 3, spec. *c* (1844); *id. Gen. B.* ii. p. 467, n. 8 (part.) (1844); *Hartl.* (*nec Linn.*) *J. f. O.* 1854, p. 504 (Gambia, Cape Coast Castle); ? *Layard, B. S. Afr.* p. 255 (1867).

Treron nudirostris, *Rchnb. Syn. Av. Novit.* Columbariæ, f. 2486 (nec ff. 1349–40) (1851); *Hartl. Syst. Orn. W.-Afr.* p. 192 (1857); *Hartl. & Mont. P. Z. S.* 1860, p. 112 (Angola); *Hartl. J. f. O.* 1861, p. 266 (Camma and Ogowè Rivers); ? *Heugl. J. f. O.* 1862, p. 294 (N.E. Afr.); ? *Hartl. P. Z. S.* 1863, p. 106 (Kazeh, E. Afr.); *Sharpe & Bouv. Bull. Soc. Zool. France*, 1867, p. 52 (Chinchoxo); *Cab. v. d. Deck. Reis.* iii. p. 42 (1869) (Mombas); *Finsch & Hartl. Vög. Ost-Afr.* p. 537 (part.) (1870) (Mombas); *Bocage, J. Sc. Lisb.* 1870, p. 349; *Heugl. Orn. N.O.-Afr.* i. 2, p. 831 (1871) (Mombas); *G. R. Gr. Hand-list*, ii. p. 224, n. 9113 (1870); *Heugl. Orn. N.O.-Afr.* i. 2, p. 82 (1871), ii. Nachtr. p. 168 (part.) (1875); *Bocage, J. Sc. Lisb.* 1876, p. 255; *id. J. f. O.* 1876, p. 316; *Oust. Nouv. Arch. Mus.* (2) ii. p. 114 (1879) (Ogowè); *Hartl. Abh. nat. Ver. Brem.* vii. p. 117 (1881) (N.E. Afr.); *Böhm, J. f. O.* 1882, p. 199 (Centr. Afr.), 1883, p. 199; *Böhm & Schal. J. f. O.* 1886, pp. 416, 420, 423; *Matschie, J. f. O.* 1887, p. 146; *Schal. J. f. O.* 1887, p. 228; *Rchnw. J. f. O.* 1892, p. 16.

Phalacrotreron calva, *Bp. Consp. Av.* ii. p. 6 (1854); *id. Compt. Rend.* xl. p. 216, n. 4 (1855); *id. Coup d'œil Ordre Pig.* p. 54, n. 4 (1855); *id. Icon. Pig.* pl. 3 (head) (1857); *Rchnb. Tauben*, i. p. 107 t. 240 *b*. f. 3370, t. 242. f. 1347 (*ex Jard. & Selby*), ii. p. 181, t. v. f. 51 (*ex Bp.*) (1862); *G. R. Gr. Hand-list*, ii. p. 224, n. 9111 (1870); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 5 (1873) (Angola); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 280 (1890).

Phalacrotreron nudirostris, *Bp. Consp. Av.* ii. p. 7 (1854); *id. Compt. Rend.* xxxix. p. 873 (1854), xl. p. 216, n. 5 (1855); *id. Coup d'œil Ordre Pig.* pp. 4, 54, n. 5 (1855); *id. Icon. Pig.* pl. 3. f. B (1857); *Cass. Pr. Ac. Nat. Sc. Philad.* 1859, p. 143, n. 188; *id. J. f. O.* 1860, p. 196; *Rchnb. Tauben*, i. p. 107, t. 244. f. 2486 (1862), ii. p. 181, *Suppl.* t. v. f. 51 (*ex Bp.*) (1862); *G. R. Gr. Hand-list*, ii. p. 224, n. 9113 (1870); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 5 (1873) (Bissao, Casamance, Angola); *Oust. Bull. Soc. Philom.* (7) i. p. 106 (1877).

Vinago pytiriopsis, *Verr. MS.* ?, undè

Phalacrotreron pytiriopsis, *Bp. Compt. Rend.* xxxix. p. 873 (1854).

Treron nudifrons, *Heugl. MS. in Mus. Stutty.* (Slave Coast); *Bocage, J. Sc. Lisb.* ii. p. 144 (1867); *id. J. f. O.* 1876, p. 316.

Treron calvus, *Rchnw. J. f. O.* 1874, p. 388 (Cameroons, Gaboon); *Shell. P. Z. S.* 1888, p. 45 (Tomaja, Equatorial Africa).

Treron wakefieldi, *Shell.* (*nec Sharpe*) *P. Z. S.* 1885, p. 229 (Kilimanjaro).

Treron calva, variété d'Angola, *Bocage, J. Sc. Lisb.* xi. p. 253 (1887).

Adult male. Forehead naked, in some specimens very extensively, and apparently swollen into a large knob; head, neck, and underparts olive-green, more or less yellowish; a broad leaden-grey collar at the base of the hind neck, more or less conspicuous; rest of the upper parts olive; feathers of the flanks olive, edged with yellowish white; middle of the abdomen pale yellow; tibial feathers bright

yellow; under tail-coverts cinnamon, with pale buff edges, the smaller ones partly olive, edged with whitish; a patch near the bend of the wings vinous purple; primary-coverts and quills black, the latter with narrow yellow edges; greater wing-coverts and secondaries with broader yellow edges; tertials olive like the back: under wing-coverts lead-grey with a greenish wash; quills underneath lead-grey; tail grey, the lateral feathers with a broad paler apical band, more or less distinct; tail underneath black, with a broad apical grey band: "iris blue, surrounded by a red rim; bill bluish grey, with the basal portion red; feet yellowish flesh-colour" (*Shelley*), or "orange-yellow" (*W. A. Forbes*). Total length about 10·5 inches, wing 6·6 to 6·1, tail 3·7, bill from gape 0·9, tarsus 0·9.

Young (and *female*?). The naked place on the forehead less extended; the grey collar at the base of the hind neck less distinct, and the longer under tail-coverts reddish buff, greyish green along the central part.

Hab. Western Africa from Bissao to Angola and through Equatorial Africa to East Africa, as far south as Zambesi.

I have not been able to find differences between Sierra Leone and Angola birds; those from Central Africa (*Bohndorff*) and from Kilimanjaro are brighter, having the head, neck, and both under and upper parts yellower, and the grey band at the apical portion of the tail lighter.

a, *b*. Ad. sk.	W. Africa.	Purchased.
c. Ad. st.		Sir E. Sabine.
d. Ad. sk.	Sierra Leone (*Dr. Clark*).	Shelley Coll.
e. Ad. sk.	Sierra Leone.	Tweeddale Coll.
f, *g*. Ad. sk.	Ashanti.	Gould Coll.
h. Ad. sk.	Ashanti.	G. Lagden, Esq. [P.].
i. Ad. sk.	Cape Coast.	Tweeddale Coll.
k. Ad. sk.	Gold Coast.	Sir A. Moloney [P.].
l. Ad. sk.	Gold Coast.	Col. Strachan [P.].
m, *n*. Ad. sk.	Gold Coast.	Gov. Ussher [C.].
o, *p*, *q*. Ad. sk.	Gold Coast (*Aubinn*).	Shelley Coll.
r. Ad. sk.	Denkera (*Ussher*).	Shelley Coll.
s. Ad. sk.	Elbromah, June (*Ussher*).	Shelley Coll.
t. Ad. sk.	Accra (*Buckley*).	Shelley Coll.
u. Ad. sk.	Ekraful, Fantee, May.	H. F. Blissett, Esq. [P.].
v, *w*. Ad. et pull. sk.	R. Niger.	Dr. Baikie [C.].
x. ♀ ad. sk.	Shonga.	W. A. Forbes, Esq. [P.].
y. Ad. sk.	Calabar R.	Purchased.
z. ♀ ad. sk.	Rio del Rey, Cameroons (*H. H. Johnston*).	Shelley Coll.
a'. Ad. sk.	Gaboon.	Purchased.
b'. Ad. sk.	Gaboon (*Du Chaillu*).	Tweeddale Coll.
c'. Ad. sk.	Gaboon (*Du Chaillu*).	Shelley Coll.
d'. Ad. sk.	Gaboon (*Walker*).	Shelley Coll.
e'. Juv. sk.	Gaboon.	H. T. Ansell, Esq. [P.].
f'. Ad. sk.	R. Ogowè.	H. T. Ansell, Esq. [P.].

g'. ♂ ad. sk.	Prince's Is., March.	Prof. Barboza du Bocage [P.].
h'. ♂ ad. sk.	Katenbella, Dec. (*Sala*).	Salvin-Godman Coll.
i'. Ad. sk.	Angola (*Monteiro*).	Sharpe Coll.
k'. Ad. sk.	Ambriz, Dec. (*Monteiro*).	Sharpe Coll.
l'. ♂ ad. sk.	Tomaja, E. Equatorial Africa, Aug.	Emin Pasha [P.].
m', *n'*. Ad. sk.	Niam Niam Country, Oct., Dec.	F. Bohndorff [P.].
o', *p'*. ♂ ad. sk.	Kilimanjaro (*H. H. Johnston*).	Shelley Coll.
q', *r'*. ♀ ad. sk.	Kilimanjaro.	H. H. Johnston, Esq. [C.].
s'. Skeleton.		Salvin-Godman Coll.
t'. Skeleton.	Gabcon.	Eyton Coll.

5. Vinago wakefieldi.

? Treron nudirostris, *Hartl.* (*nec Sw.*) *P. Z. S.* 1863, p. 106 (Kazeh, E. Africa); *Böhm, J. f. O.* 1832, p. 199 (Kakomo, Konko, C. Africa).
Treron abyssinica, *Kirk* (*nec Lath.*), *Ibis*, 1864, p. 329 (Zambesi).
Treron wakefieldi, *Sharpe, P. Z. S.* 1873, p. 715, pl. 58. f. 2 (Mombas); *Fischer & Rchnw. J. f. O.* 1879, pp. 291, 339 (Engatana); *Gurn. Ibis*, 1881, p. 128; *Shell. P. Z. S.* 1881, p. 595 (Lamo and Pangani); *id. Ibis*, 1883, p. 269; *Schalow, J. f. O.* 1883, p. 342 (Konko, Ugogo); *Sharpe, Layard's B. S. Afr.* p. 557 (part.) (1884); *Fischer, J. f. O.* 1885, p. 118; *Bocage, J. Sc. Lisb.* xi. p. 253 (1887); *Shell. Ibis*, 1888, p. 303 (Tangani, E. Africa); *Tristr. Cat. Coll. B.* p. 46 (1889); *Shell. P. Z. S.* 1889, p. 369 (Duruma).
? Treron delalandei, *Fischer, J. f. O.* 1885, p. 118 (part. ?).

Adult. Very similar to *V. calva*, which it resembles in size, nudity of the forehead, grey collar at the base of the hind neck, vinaceous and yellow on the wings, and in the under tail-coverts; but differs in the head, neck, and chest being yellower, in the olive parts of the back and wings being also yellower, and in the tail being above olive-yellow instead of grey, and ending in a broad greenish-white terminal bar: "iris with an inner ring pale blue, and an outer one vinous red" (*Böhm*), "or silky white" (*Fischer*); "bill white, with the basal half orange" (*Böhm*), "or bluish white, with the basal half to the nostrils vermilion" (*Fischer*); "feet purple-red" (*Böhm*). Total length about 9·6 inches, wing 6·15 to 5·65, tail 3·5 to 3·1, culmen 0·8, tarsus 0·9 to 0·85.

Obs. The greenish-yellow colouring of the upper surface of the tail is in this species the best marked character for its separation from the grey-tailed *V. calva*.

Hab. E. Africa, from Mombas to the Zambesi.

a–d. Ad. et imm. sk.	Mombas (*Wakefield*).	Sharpe Coll. (Types of species.)
e. Ad. sk.	Mombas (*Wakefield*).	Shelley Coll.
f. Ad. sk.	Mombas.	Rev. H. F. Buxton [P.].
g. Ad. sk.	Mombas.	Gurney Coll.

h. ♂ ad. sk.	Lamu, Aug.	F. J. Jackson, Esq. [P.]
i. Ad. sk.	Lamu (*Kirk*).	Shelley Coll.
k. Ad. sk.	Usambara Mountains, Pangani R. (*Kirk*).	Shelley Coll.
l. ♂ ad. sk.	Duruma, Aug.	H. C. V. Hunter, Esq. [P.].
m, *n.* Ad. sk.	Zambesi.	Dr. Bradshaw [C.].

6. Vinago schalowi.

Phalacrotreron calva, *Gurn.* (*nec Temm.*) *in Anderss. Damaraland*, p. 230 (1872) (Ondonga).

Treron schalowi, *Rchnw. Orn. Centrabl.* 1880, p. 108 (Diamond Fields, S. Africa); *Rchnw. & Schal. J. f. O.* 1880, p. 208; *Schalow, Mitth. d. orn. Ver. Wien*, 1883, p. 196; *id. J. f. O.* 1884, p. 232.

Treron wakefieldi, *Sharpe, Layard's B. S. Afr.* p. 557 (part., Matabele-land) (1884).

Treron delalandei, part., *Tristr. Cat. Coll. B.* p. 45 (Ondonga) (1889).

Similar to *V. wakefieldi*, from which it differs in the much larger size, duller, almost indistinct grey neck-band, more olive-green back, scapulars, rump, and upper tail-coverts, and broader yellowish-white band at the tip of the tail. "Length of the wing 185 mm. (= 7·27 inches), tail 111 mm. (= 4·32), bill 24 mm. (= 0·94)" (*Reichenow*).

I find only 6·2 to 6·9 inches for the wing, and 0·80 to 0·85 for the culmen of the bill.

Hab. From Diamond Fields to Matabele-land, and across to Ondonga, S. Africa.

a. Ad. sk.	Matabele-land (*F. Oates*).	W. E. & C. G. Oates. Esqrs. [P.].
b. ♂ ad. sk.	Ondonga, Ovampo-land (*Andersson*).	Salvin-Godman Coll.
c, *d*, *e.* Ad. sk.	Ondonga, Ovampo-land (*Andersson*).	Tweeddale Coll.

7. Vinago delalandei.

Treron australis, part., *G. R. Gr.* (*nec Linn.*) *List Spec. B. Brit. Mus.* Gallinæ, p. 3, specim. *a*, *b* (1844).

Vinago calva, *Verr.* (*nec Temm.*) *Rev. et Mag. de Zool.* 1851, p. 423; *Jard. Edinb. New Phil. Journ.* n. s. ii. p. 246 (1855); *Bianc. Spec. Zool. Mosamb.* fasc. xvi. p. 400 (1865).

Treron nudirostris, *Licht.* (*nec Sw.*) *Nomencl. Av.* p. 82 (1854).

Phalacrotreron delalandii, *Bp. Consp. Av.* ii. p. 6 (1854) (Port Natal); *id. Compt. Rend.* xxxix. p. 872 (1854), xl. p. 216, n. 2 (1855); *id. Coup d'œil Ordr. Pig.* pp. 4, 54, n. 2 (1855); *id. Icon. Pig.* pl. 1 (1857); *Rchnb. Tauben*, pp. 106, 181; *Nov. Suppl.* t. v. f. 59 (1862); *G. R. Gr. Hand-list*, ii. p. 224, n. 9112 (1870); ? *Sousa, Mus. Nac. Lisb.* Columbæ, p. 5 (1873) (Afr. occid.! Afr. austr.); *Ayres, Ibis*, 1880, p. 109 (Transvaal); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 280 (1890).

Treron delalandii, *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 14 (1856); *Gurn. Ibis*, 1862, p. 33 (Natal); *Sclat. P. Z. S.* 1862 p. 12, 1864, p. 113 (Uzaramo, E. Africa); *Hartl. P. Z. S*

1867, p. 82 (Zanzibar); *Layard, B. S. Afr.* p. 255 (1867); *Gurn. Ibis*, 1868, p. 164; *Poll. & Schleg. Rech. Faun. Madag.* p. 117 (1868); *Kersten, v. d. Decken's Reis.* i. p. 60 (1869); *Finsch & Hartl. Vög. Ostafr.* p. 535 (1870); *Heugl. Orn. N.O.-Afr.* i. 2, p. 822 (1871); *Schleg. Mus. P.-B.* Columbæ, p. 49 (1873); *Heugl. Orn. N.O.-Afr.* ii. Nachtr. p. 168 (1875); *Shell. Ibis*, 1875, p. 83 (Pinetown); *Gieb. Thes. Orn.* iii. p. 651 (1877); *Nichols. P. Z. S.* 1878, p. 359 (Darra-Salam); *Fisch. & Rchnw. J. f. O.* 1878, pp. 250, 293 (Mombasa); *Shelley, P. Z. S.* 1881, p. 595; *Salv. Cat. B. Strickl. Coll.* p. 556 (1882); *Holub & Pelz. Beitr. Orn. Südafr.* p. 171 (1882); *Shell. Ibis*, 1882, p. 358, 1883, p. 270; *Sharpe, Layard's B. S. Afr.* p. 558 (1884); *Fischer, Zeitschr. f. ges. Orn.* 1884, p. 376; ? *id. J. f. O.* 1885, p. 118 (Zanzibar, Mombasa, Maurui, Aruscha); *Ayres, Ibis*, 1885, p. 345 (Transvaal); *Rchnw. J. f. O.* 1887, p. 50 (Simiu River); *Tristr. Cat. Coll. B.* p. 45 (part.) (1889) (Transvaal); *Rchnw. J. f. O.* 1889, p. 269 (E. Afr.); *Hartert, Kat. Vogelsamml.* p. 192 (1892); *Shell. Ibis*, 1893, p. 28 (Zomba).

Adult male. Head, neck, and underparts greyish green; below the hind neck a broad grey collar; back, rump, upper tail-coverts, and wings olive-yellow; centre of the abdomen and tibial feathers bright yellow; feathers of the flanks olive along the centre, and broadly edged with white; under tail-coverts chestnut, broadly edged with whitish, the basal ones olive edged with white; smaller wing-coverts near the bend of the wing vinaceous; primary-coverts and quills black, the primaries with narrow yellow edges, secondaries and greater wing-coverts with broader yellow edges, tertials olive-yellow like the back; under wing-coverts and quills beneath lead-grey; tail above olive-yellow, with the apical third pale whitish olive; tail below black, with the apical band whitish grey: "iris light blue, whitish towards the pupil; basal half of bill crimson, the remainder light slate-colour; tarsi and feet vermilion" (*Ayres*). Total length about 12 inches, wing 7, tail 4·6, bill 0·8, tarsus 0·9.

Female. Rather smaller, and has the under tail-coverts olive, broadly edged with whitish, and with very little cinnamon in the centre.

Young. Similar to the female, but the vinaceous colour near the bend of the wing less extended.

Hab. Eastern and Southern Africa, from Mombasa to Kaffraria, and inland as far as the Nyassa.

a. Ad. sk.	S. Africa.	M. Verreaux.
b. Ad. sk.	S. Africa.	Purchased.
c. Ad. st.	Cape Colony.	Earl of Derby [P.].
d. Ad. sk.	Kingwilliamstown.	Major Trevelyan [P.].
e. Ad. sk.	Natal (*Ayres*).	Salvin-Godman Coll.
f. Ad. sk.	Durban (*Gordge*).	Shelley Coll.
g, h. ♂ ♀ ad. sk.	Umlaas, Durban (*Gordge*).	Shelley Coll.
i, k. ♂ ad. sk.	Pinetown, June, Aug. (*Ayres*).	Shelley Coll.
l. Ad. sk.	Transvaal.	Salvin-Godman Coll.
m, n. ♂ ad. sk.	Rustenburg, June, Aug. (*Ayres*).	Gurney Coll.

o. Ad. sk.	Zambesi (*Meller*).	Tweeddale Coll.
p. Ad. sk.	Zambesi.	Sir J. Kirk [P.].
q. Ad. st.	Shupanga (*Kirk*).	Livingstone Exped.
r, *s*, *t*. ♂ ♀ ad. sk.	Zomba, Nyassa, Aug., Sept.	H. H. Johnston, Esq., C.B. [P.].
u. Ad. sk.	Milangi, Nyassa, Nov.	H. H. Johnston, Esq., C.B. [P.].
v. Ad. sk.	Dar-es-Salaam (*Buxton*).	Shelley Coll.
w, *x*. Ad. sk.	Mamboio (*Kirk*).	Shelley Coll.
y. Ad. sk.	Ugogo (*Kirk*).	Shelley Coll.

3. CROCOPUS.

	Type.
Crocopus, *Bp. Consp. Av.* ii. p. 11 (1854); *id. Compt. Rend.* xxxix. p. 874 (1854)	C. phœnicopterus.

Range. India, Burmese countries, Cochin China, and Ceylon.

Key to the Species.

a. Tail with a well-defined yellow-green band at the base.
  a'. Green band at the base of the tail above not strongly contrasting with the greenish upper tail-coverts; front part of the crown with very little green ..... *phœnicopterus*, p. 26.
  b'. Green band at the base of the tail contrasting strongly both with grey tip and with the grey upper tail-coverts..... *viridifrons*, p. 28.
b. Tail generally plain grey above, with no green, or scarcely any, at the base; underparts yellowish green; very little green, or scarcely any, on the forehead ..... *chlorogaster*, p. 30.

1. Crocopus phœnicopterus.

Purple-shouldered Pigeon, *Lath. Syn. Suppl.* p. 201, n. 60 β (1787).
Columba phœnicoptera, *Lath. Ind. Orn.* ii. p. 597, n. 13 (1790); *Bonn. Enc. Méth.* p. 244 (1790); *Vieill. N. D.* xxvi. p. 391 (1818); *Wagl. Syst. Av.* Columba, sp. 1 (part.) (1827).
Columba militaris, part., *Temm. Pig.* pl. 1 (*nec* pl. 2) (1808); *id. Hist. Nat. Pig.* i. pp. 39, 139 (part.) (1813); *Desm. Dict. Sc. Nat.* xl. p. 363 (part.) (1826); *Less. Tr. d'Orn.* p. 476 (1831); *id. Compl. de Buff., Ois.* viii. p. 17 (1837); *id. op. cit.* 2nd ed. p. 273 (1838).
Columba militaris, var. C, *Temm. Hist. Nat. Pig.* i. p. 140 (1813).
Columba s. thomæ, part., *Vieill. N. D.* xxvi. p. 392 (1818).
Vinago militaris, part., *Steph. Gen. Zool.* xi. 1, p. 109 (1819); *Cuv. Règn. An.* 2nd ed. i. p. 492 (part.) (1829); *Frankl. P. Z. S.* 1831, p. 122; *Vig. P. Z. S.* 1831, p. 173; *Gould, Cent. Himal. B.* pl. 58 (1831); *Hartl. Syst. Verz. Brem.* p. 98 (1844).
Treron militaris, part., *Steph. Gen. Zool.* xiv. 1, p. 274 (1826).
Columba hardwickii, *Gray in Griff. An. Kingd.* viii. with pl. (1829).

Treron st. thomæ, *G. R. Gr.* (*nec Gm.*) *List of Gallinæ B. M.* p. 2 (1844); *id. Gen. B.* ii. p. 467, n. 2 (part.) (1844); *id. Cat. Hodgs. Coll. B. M.* p. 421 (1846); *Rchnb. Syn. Av.* Columbariæ, ff. 1343–44 (1847).

Vinago phœnicoptera, *Strickl. Ann. & Mag. N. H.* xiii. p. 38 (1844).

Treron phœnicoptera, *Strickl. Ann. & Mag. N. H.* xiv. p. 116 (1844); *Blyth, Journ. A. S. B.* xiv. 2, p. 849 (1845); *id. Ann. & Mag. N. H.* xix. p. 45 (1847); *id. Cat. B. Mus. A. S. B.* p. 229, n. 1384 (1849); *G. R. Gr. Gen. B.* App. p. 23 (1849); *Adams, P. Z. S.* 1858, p. 497, 1859, p. 188 (Cashmere & Ladak); *Blyth, P. Z. S.* 1863, p. 371; *Gray, Cat. Hodgs. Coll. B. M.* 2nd ed. p. 66 (1863); *Wall. Ibis*, 1865, p. 375; *id. J. f. O.* 1866, p. 277; ? *Blanf. Ibis*, 1870, p. 469 (Ava); *Schleg. Mus. P.-B.* Columbæ, p. 45 (part.) (1873); *Gieb. Thes. Orn.* iii. p. 652 (part.) (1877); *Salv. Cat. B. Strickl. Coll.* p. 556 (1882); *Sclat. List Vert. An.* 8th ed. p. 445 (1883); *Tristr. Cat. Coll. B.* p. 46 (1889); *Hartert, Kat. Vogelsamml.* p. 191 (1891).

Treron nudirostris, *Rchnb.* (*nec Sw.*) *Syn. Av.* Columbariæ, f. 1349 (1847).

Crocopus phœnicopterus, *Bp. Consp. Av.* ii. p. 11 (1854); *id. Compt. Rend.* xxxix. p. 874 (1854), xl. p. 216, n. 19 (1855); *id. Coup d'œil Ordr. Pig.* pp. 5, 54, n. 19 (1855); *Rchnb. Tauben*, i. p. 106, t. 242. f. 1349 (1862), ii. p. 181, t. 242. ff. 1343–44 (*ex Gould*); *Novit. Suppl.* t. iv. f. 48 (*ex Knip*) (1862); *Jerd. B. Ind.* iii. p. 447 (1864); *Beavan, P. Z. S.* 1864, p. 376; *Blyth, Ibis*, 1867, p. 147; *Beav. Ibis*, 1868, p. 370; *G. R. Gr. Hand-list*, ii. p. 222, n. 9088 (1870); *Lloyd, Ibis*, 1873, pp. 399, 400, 414; *Adam, Str. Feath.* i. p. 390 (1873); *Elwes, P. Z. S.* 1873, p. 674; *Blanf. Ibis*, 1874, pp. 91, 92; *Hume, Nests & Eggs*, iii. p. 491 (1875); *Ball, Str. Feath.* ii. p. 433 (1874); *Hume, Str. Feath.* iv. p. 2 (1876), viii. p. 109 (1879); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 279 (1890).

Treron phœnicopterus, *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 13 (1856).

Crocopus phœnicoptera, *Sousa, Mus. Nac. Lisb.* Columbæ, p. 6 (1873).

Adult male. Forehead, lores, and throat greenish; top of the head, occiput, and ear-coverts ash-grey; neck all round and upper breast yellow-green; a narrow grey band across the upper part of the mantle; rest of the mantle, lower back, scapulars, innermost smaller wing-coverts and tertiaries olive-green; upper tail-coverts tinged with grey; lower breast, abdomen, sides, and axillaries light grey; feathers of the flanks grey, darker towards the apical portion and edged with grey; tibial feathers bright yellow; under tail-coverts chestnut with broad whitish edges at the tip; smaller upper wing-coverts near the bend of the wing dull purple; greater wing-coverts margined with pale yellow, forming an oblique bar across the wing; quills brown-black, with narrow pale yellow edges; under surface of the wings lead-grey, the under wing-coverts with a slight greenish tinge on the edges; tail above grey, more or less tinged with olive-yellow at the base; tail underneath black, with a broad grey apical band, occupying about two fifths of its length: "bill whitish; feet deep yellow; irides carmine, with an outer circle of smalt-blue"

(*Jerdon*). Total length about 12·5 inches, wing 7·5, tail 4·75, bill 0·76, tarsus 0·95.

Female. Similar to the male, but the purple tinge near the bend of the wing very slightly marked, and the under tail-coverts of a slate-grey in the middle, more or less mixed with chestnut.

Hab. Bengal and the country up to the Himalayas, westward to the Jumna; also in Central and North-western Provinces and Oudh; straggler in the eastern portion of the Punjab and Rajpootana.

a. Ad. sk.	Kumaon.	Tweeddale Coll.
b. Ad. sk.	Kumaon (*Griffith*).	India Museum.
c. Ad. sk.	Dehra Dhoon.	Tweeddale Coll.
d, e. Ad. sk.	Dehra Dhoon.	Hume Coll.
f, g. Ad. sk.	Orryah.	Hume Coll.
h, i. ♀ ad. sk.	Siwalik (*Dr. Scott*).	Tweeddale Coll.
k. Ad. sk.	Etawah.	Hume Coll.
l. ♂ ad. sk.	Futtehgurh, Oct. (*A. Anderson*).	H. Seebohm, Esq. [P.].
m. ♀ ad. sk.	Rajapore, Nov. (*A. Anderson*).	H. Seebohm, Esq. [P.].
n. ♂ ad. sk.	Hajupur, April.	Hume Coll.
o, p. ♂ ♀ ad. sk.	Nepal, Nov. (*J. Scully*).	Hume Coll.
q t. Ad. sk. et st.	Nepal.	B. H. Hodgson, Esq. [P.].
u–x. Ad. sk.	Nepal (*B. H. Hodgson*).	India Museum [P.]
y, z, a'. Ad. sk.	Sikkim.	Hume Coll.
b'–h'. ♂ ♀ ad. sk.	Bhotan Doars, Jan., Feb. (*L. Mandelli*).	Hume Coll.
i'. Ad. sk.	Assam (*H. Godwin-Austen*).	Tweeddale Coll.
k'. ♂ ad. sk.	N. Khasia Hills (*A. W. Chennell*).	Tweeddale Coll.
l'. Ad. sk.	Cachar (*J. Inglis*).	Hume Coll.
m'. ♂ ad. sk.	Faridpur, April (*J. R. Cripps*).	Hume Coll.
n', o'. Ad. sk.	Dacca.	Hume Coll.
p'. Ad. sk.	Calcutta.	India Museum.
q'. ♀ ad. sk.	Saugor, Jan.	Hume Coll.

2. Crocopus viridifrons.

Treron viridifrons, *Blyth, J. A. S. B.* xiv. 2, p. 849 (1845) (Tenasserim); *id. Ann. & Mag. N. H.* xix. p. 45 (1847); *G. R. Gr. Gen. B.* App. p. 23 (1849); *Blyth, Cat. B. Mus. A. S. B.* p. 228, n. 1383 (1849); *id. J. A. S. B.* xxiv. p. 479 (1855); *Wall. Ibis*, 1865, p. 375; *id. J. f. O.* 1866, p. 247; *Blanf. Ibis*, 1870, p. 469; *Godwin-Aust. J. A. S. B.* xxxix. p. 111 (1870); *Tristr. Cat. Coll. B.* p. 46 (1889).

Crocopus viridifrons, *Bp. Consp. Av.* ii. p. 11 (1854); *id. Compt. Rend.* xxxix. p. 874 (1854), xl. p. 216, n. 20 (1855); *id. Coup d'œil Ordr. Pig.* pp. 5, 54, n. 20 (1855); *id. Icon. Pig.* pl. 9 (1857); *Rchnb. Tauben*, i. p. 106 (1862); *Jerd. B. Ind.* iii. p. 449 (1864); *Blyth, Ibis*, 1867, p. 147; *G. R. Gr. Hand-list*, ii. p. 222, n. 9089 (1870); *Elwes, P. Z. S.* 1873, p. 662; *Hume, Str. Feath.* ii. p. 481 (1874), iii. p. 161 (1875); *Blyth & Wald. B. Burm.* p. 143 (1875); *Godwin-Aust. J. A. S. B.* xliv. p. 83 (1876); *Wardl. Rams. Ibis*, 1877, p. 455; *Oates, Str. Feath.* v. p. 163

(1877); *Anders. Yunn. Exped.* p. 664 (1878); *Hume & Davis. Str. Feath.* vi. p. 410 (1878); *Hume, Str. Feath.* viii. p. 109 (1879); *Tiraut, Bull. Com. Agr. et Ind. Cochinch.* (3) i. p. 140, n. 245 (1879) (Cochinchine); *Bingh. Str. Feath.* ix. p. 194 (1880); *Hume & Inglis, Str. Feath.* ix. p. 257 (1880); *Oates, Str. Feath.* x. p. 235 (1882); *id. B. Brit. Burm.* ii. p. 307 (1883); *Salvad. Ann. Mus. Civ. Gen.* (2) iv. p. 610 (1887); *Hume, Str. Feath.* xi. p. 290 (1888); *W. L. Sclat. Ibis*, 1892, p. 86 (type).

Treron phœnicoptera, *Schomb.* (*nec Lath.*) *Ibis*, 1864, p. 249 (Siam); *Schleg. Mus. P.-B.* Columbæ, p. 45 (part.) (1873); *Gieb. Thes.* iii. p. 652 (1877).

Similar to *C. phœnicopterus*, but is distinguished by having the green of the head more extended on the crown and the grey of the head more reduced; the green band at the base of the tail above better defined and contrasting strongly both with grey tip and with grey upper tail-coverts: "legs and feet bright chrome-yellow; bill light bluish or greenish, tinged strongly on cere, gape, and base of lower mandible with green; irides with an inner ring of bright blue and an outer ring of buffy pink; one female has the irides deep crimson-lake, with an inner ring of bright blue" (*Hume*). Length 13 to 13·5 inches, wing 7·25 to 7·6, tail 4·3 to 4·8, bill 0·76, tarsus 0·9 to 1·1.

Female. Like the male, only a little smaller.

Hab. Burmese countries, to Cachar on the north, to Cochin China * on the east, and Moulmein on the south.

a. Ad. sk.	Burma.	Hume Coll.
b. ♀ ad. sk.	Upper Burma, Jan.	Dr. J. Anderson [C.].
c. Ad. sk.	Ava.	W. T. Blanford, Esq. [P.].
d–g. ♂ ♀ ad. sk.	Pegu, Feb. (*E. W. Oates*).	Hume Coll.
h, i. ♂ ♀ ad. sk.	Lower Pegu, Feb.	E. W. Oates, Esq. [C.].
k–n. Ad. sk.	Thayetmyo.	Hume Coll.
o–s. ♂ ♀ ad. sk.	Tonghoo, Jan., Feb., Nov. (*R. G. W. R.*)	Tweeddale Coll.
t–w. ♂ ♀ ad. sk.	Pahpoon, Jan. (*W. Davison*).	Hume Coll.
x. ♂ ad. sk.	Sittang River, Feb. (*W. Davison*).	Hume Coll.
y, z. ♂ ad. sk.	Thatone, Dec., Jan. (*W. Davison*).	Hume Coll.
a' ♀ ad. sk.	Thatone, Dec. (*W. Davison*).	Salvin-Godman Coll.
b'. ♀ ad. sk.	Tham Zaik, Dec. (*W. Davison*).	Hume Coll.
c', d'. ♂ ♀ ad. sk.	Myawadee, Jan. (*W. Davison*).	Hume Coll.
e'. ♂ ad. sk.	Attaran R., Dec. (*W. Davison*).	Hume Coll.
f. ♂ ad. sk.	Moulmein, Dec. (*W. Davison*).	Hume Coll.

* Mr. Oates has given Cochin China as a locality inhabited by *C. viridifrons*, but I must say that, although I have included among the specimens of this species one from Cochin China, it looks very much like *C. phœnicopterus*.

g'. Ad. sk.	Rangoon.	H. Seebohm, Esq. [P.].
h'. Ad. sk.	Cochin China, Nov.	M. E. Pierre [C.].

3. Crocopus chlorogaster.

Columba militaris ♀, *Temm. Pig.* pl. 2 (1808); *id. Hist. Nat. Pig.* i. pp. 39, 139 (part.) (1813); *Desm. Dict. Sc. Nat.* xl. p. 363 (part.) (1826).

Columba phœnicoptera ♀, *Vieill. N. D.* xxvi. p. 391 (1818); *Wagl. Syst. Av.* Columba, sp. 1 (part.) (1827).

Columba s. thomæ ♀, *Vieill.* (*nec Gm.*) *N. D.* xxvi. p. 392 (1818).

Vinago militaris ♀, *Steph. Gen. Zool.* xi. 1, p. 109 (1819); *Cuv. Règn. An.* 2nd ed. i. p. 492 (part.) (1829); *Jerd.* (*nec Temm.*) *Madr. Journ.* xii. p. 12, n. 286 (1840).

Vinago chlorigaster, *Blyth. J. A. S.* xii. 1, p. 167, note (1843); *Strickl. Ann. & Mag. N. H.* xiii. p. 205 (1844); *Blyth, Ann. & Mag. N. H.* xiv. p. 116 (1844).

Treron jerdoni, *Stickl. Ann. & Mag. N. H.* xiii. p. 38 (1844); *G. R. Gr. Gen. B.* ii. p. 467, n. 5 (1844).

Treron chlorigaster, *Strickl. Ann. & Mag. N. H.* xiii. p. 205 (1844), xiv. p. 116 (note) (1844); *Blyth, J. A. S. B.* xiv. p. 850 (1845); *id. Ann. & Mag. N. H.* xix. p. 45 (1847); *id. Cat. B. Mus. A. S. B.* p. 229, n. 1385 (1849); *Kelaart, Prodromus, Cat.* p. 130 (1852); *Layard, Ann. & Mag. N. H.* xiv. p. 57 (1854); *Hartl. J. f. O.* 1854, p. 158; *G. R. Gr. List B. Brit. Mus.* p. 14 (1856); *Schleg. Mus. P.-B.* Columbæ, p. 46 (1873); *Salv. Cat. B. Strickl. Coll.* p. 556 (1882).

Vinago jerdoni, *Hartl. Erst. Nachtr. Verz.* p. 16, n. 175 (1846).

Treron chlorogaster, *G. R. Gr. Gen. B.* App. p. 23 (1849); *Irby, Ibis*, 1861, p. 233 (Oudh); *Wall. Ibis*, 1865, p. 375; *id. J. f. O.* 1866, p. 277; *Gieb. Thes. Orn.* iii. p. 650 (1877).

Crocopus chlorogaster, *Bp. Consp. Av.* ii. p. 12 (1854); *id. Compt. Rend.* xxxix. p. 874 (1854), xl. p. 216, n. 21 (1855); *id. Coup d'œil Ordr. Pig.* pp. 5, 54, n. 21 (1855); *Rchnb. Tauben*, i. p. 106 (1862), ii. p. 181, *Novit. Suppl.* t. iv. f. 4 (*ex Knip*) (1862); *G. R. Gr. Hand-list*, ii. p. 223, n. 9090 (1870); *Holdsw. P. Z. S.* 1872, p. 465; *Adam, Str. Feath.* i. p. 390 (1873); *Swinh. & Barnes, Ibis*, 1885, p. 130.

Crocopus chlorigaster, *Jerd. B. of Ind.* iii. p. 448 (1864); *Ball, Str. Feath.* ii. p. 423 (1874); *Hume, Nests & Eggs*, iii. p. 492 (1875); *Butl. Str. Feath.* iv. p. 2 (1876); *Hume, ibid.*; *Fairb. Str. Feath.* iv. p. 261 (1876), v. p. 408 (1877); *Ball, Str. Feath.* vii. p. 224 (1878); *Hume, Str. Feath.* viii. p. 109 (1879); *Legge, B. Ceyl.* p. 722 (1880); *W. L. Sclat. Ibis*, 1892, p. 86 (type).

Treron chlorogastra, *Tristr. Cat. Coll. B.* p. 45 (1889).

Adult male. Similar to *C. phœnicopterus*, but the crown almost wholly grey, very slightly tinged with greenish on the forehead; underparts light yellowish green; tail above grey, with no yellow-green tinge at the base, or with scarcely a trace of it.

Female. Similar to the male, but the purple tinge near the bend of the wing very slightly marked, and the under tail-coverts of a grey colour in the middle, more or less mixed with chestnut.

Hab. Peninsula of India, as far north as Nepal, and also Ceylon.

a. Ad. sk.	India.	Gould Coll.
b. Ad. sk.	Nepal.	Salvin-Godman Coll.
c. ♂ ad. sk.	Jacobabad, Feb.	Hume Coll.
d. Ad. sk.	Kattiawar, April.	Capt. H. Lloyd [P.].
e. ♂ ad. sk.	Ahmedabad, Feb.	H. Seebohm, Esq. [P.].
f. ♀ ad. sk.	Oodypur, Feb.	Hume Coll.
g. ♂ ad. sk.	Sambhur, Dec. (*R. M. Adam*).	Hume Coll.
h. ♂ ad. sk.	Erinpoora, Dec. (*G. King*).	Hume Coll.
i, *k*. ♂ ad. sk.	Delhi, April (*C. T. Bingham*).	Hume Coll.
l–*w*. ♂ ♀ ad. sk.	Gurgaon Dist., March to May (*W. N. Chill*).	Hume Coll.
x, *y*. ♂ ad. sk.	Gurgaon Dist., June (*W. N. Chill*).	Salvin-Godman Coll.
z, *a'*. Ad. sk.	Agra.	Hume Coll.
b', *c'*, *d'*. Ad. sk.	Etawah.	Hume Coll.
e'. ♂ ad. sk.	Sarun Dist., March (*R. M. Adam*).	Hume Coll.
f', *g'*, *h'*. Ad. sk.	Orryah.	Hume Coll.
i', *k'*. ♂ ♀ ad. sk.	Allahabad, Jan. (*A. O. H.*).	Hume Coll.
l'. ♂ ad. sk.	Allyghur, Nov.	Hume Coll.
m', *n'*, *o'*. Ad. sk.	N. W. India.	Capt. Stackhouse Pinwill [P.].
p'. ♂ ad. sk.	Futtehghur, Nov. (*A. Anderson*).	Hume Coll.
q', *r'*, *s'*. ♀ ad. sk.	Futtehghur, Oct. (*A. Anderson*).	H. Seebohm, Esq. [P.].
t'. ♂ ad. sk.	Rajapore, Nov. (*A. Anderson*).	H. Seebohm, Esq. [P.].
u'. ♂ ad. sk.	Sultanpur, Oudh, Dec.	Hume Coll.
v', *w'*. ♂ ad. sk.	Behar.	B. H. Hodgson, Esq. [P.].
x', *y'*. ♂ ♀ ad. sk.	Saugor, Jan., Feb.	Hume Coll.
z'. Ad. sk.	Saugor (*Hooper*).	India Museum [P.].
a''. ♀ ad. sk.	Mundla, May (*R. Thompson*).	Hume Coll.
b''. ♂ ad. sk.	Depalpur, Dec.	Col. Swinhoe [P.].
c''. ♂ ad. sk.	Satpura Hills, Feb.	Hume Coll.
d''–*h''*. Ad. sk.	Maunbhoom, Jan., Feb., Mar. (*R. C. Beavan*).	Tweeddale Coll.
i''. Ad. sk.	Maunbhoom (*R. C. Beavan*).	Salvin-Godman Coll.
k''. ♀ ad. sk.	Singbhum, Dec.	Hume Coll.
l''. ♂ ad. sk.	Godavery Valley, Jan.	Hume Coll.
m''. Ad. sk.	S.E. Berar, Jan.	W. T. Blanford, Esq. [P.].
n''. ♀ ad. sk.	S.E. Berar, Jan.	Hume Coll.
o'', *p''*. Ad. sk.	Khandeish.	India Museum [P.].
q''–*t''*. Ad. sk.	Khandeish.	Tweeddale Coll.
u'', *v''*. Ad. sk.	Matterhan, Nov. (*S. B. Fairbank*).	Hume Coll.
w'', *x''*. ♀ ad. sk.	Khandala, April, May (*S. B. Fairbank*).	Tweeddale Coll.
y''. ♀ ad. sk.	Ahmednugger, Dec. (*S. B. Fairbank*).	Tweeddale Coll.
z'', *a*³. Ad. st. et sk.	Madras.	Rev. H. H. Baber [P.].
*b*³. Ad. sk.	Madras.	Dr. T. C. Jerdon [P.].

c^3, d^3, e^3. Ad. sk.	Mysore.	Tweeddale Coll.
f^3. Ad. sk.	Mysore?	Hume Coll.
g^3. ♂ ad. sk.	Segore, Feb.	Hume Coll.
h^3. Ad. sk.	Malabar.	Tweeddale Coll.
i^3, k^3. Ad. sk.	Malabar.	Salvin-Godman Coll.
l^3. Ad. st.	Malabar.	Mrs. Spinks [P.].

4. BUTRERON.

Type.

Butreron, *Bp. Consp. Av.* ii. p. 9 (1854); *id. Compt. Rend.* xxxix. p. 873 (1854)..... B. capellei.

Range. The same as that of the only species.

1. Butreron capellei.

Columba capellei, *Temm. Pl. Col.* 143 (livr. 24, 1823) (Java); *Desm. Dict. Sc. Nat.* xl. p. 364 (1826); *Wagl. Syst. Av.* Columba, sp. 5 (1827); *Prév. & Knip, Pig.* ii. p. 69, pl. 38 (1838–43).

Treron capellei, *Steph. Gen. Zool.* xiv. 1, p. 275, pl. 32 (1826); *G. R. Gr. Gen. B.* ii. p. 467, n. 12 (1844); *Blyth, J. A. S. B.* xiv. p. 848 (1845); *Strickl. P. Z. S.* 1846, p. 105 (Malacca); *Rchnb. Syn. Av.* ff. 1350–51 (1847); *Blyth, Cat. B. Mus. A. S. B.* p. 228, n. 1382 (1849); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 13 (1856); *Sclat. P. Z. S.* 1863, p. 221 (Borneo); *Wall. Ibis*, 1863, p. 318; *Schleg. De Dierent.* fig. p. 211 (1864); *Pelz. Novara Reis., Vög.* pp. 105, 162 (1865); *Wall. Ibis*, 1865, p. 377; *id. J. f. O.* 1866, p. 277; *Schleg. Mus. P.-B.* Columbæ, p. 58 (1873); *Salvad. Ucc. Born.* p. 285 (1874); *Brüggem. Abh. nat. Ver. Brem.* v. pp. 461, 529 (1877); *Sharpe, Ibis*, 1877, p. 23; *Rosenb. Malay. Archip.* p. 108 (1878); *Becc. Ann. Mus. Civ. Gen.* xiii. p. 453 (1878); *Hume, Str. Feath.* viii. p. 67 (1879) (Malacca, Johore); *Sharpe, Ibis*, 1879, p. 265; *Kelh. Ibis*, 1881, p. 525 (Malacca); *Salv. Cat. B. Strickl. Coll.* p. 556 (1882); *Vorderm. N. T. N. I.* xlii. p. 91 (1882); *Blas. J. f. O.* 1884, p. 215; *Vorderm. N. T. N. I.* xlvi. p. 235 (1886); *Pelz. & Lor. Ann. Naturh. Hofmus.* iii. p. 46 (1888); *Everett, J. Str. Br. R. As. Soc.* 1889, p. 196; *Tristr. Cat. Coll. B.* p. 45 (1889); *Sharpe, Ibis*, 1890, pp. 133, 283.

Vinago capellei, *Cuv. Règn. An.* i. p. 492 (1829).

Vinago gigantea, *Vig. App. Mem. Raffles*, p. 674 (1831) (Sumatra).

Columba capella, *Less. Tr. d'Orn.* p. 475 (1831).

Treron magnirostris, *Strickl. Ann. & Mag. N. H.* 1844, p. 115; *id. P. Z. S.* 1846, p. 105.

Butreron capellii, *Bp. Consp. Av.* ii. p. 9 (1854); *id. Compt. Rend.* xxxix. p. 873 (1854), xl. p. 216, n. 13 (1855); *id. Coup d'œil Ordre Pig.* pp. 5, 54, n. 13 (1855); *Moore, P. Z. S.* 1859, p. 464 (Pinang); *Rchnb. Tauben*, i. p. 110, t. 243. ff. 1350–51 (1862), ii. p. 182 (1862); *G. R. Gr. Hand-list*, ii. p. 223, n. 9102 (1870); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 6 (1873); *Tweedd. Ibis*, 1877, p. 321 (Sumatra); *Salvad. Ann. Mus. Civ. Gen.* xiv. p. 242 (1879); *Nichols. Ibis*, 1882, p. 65; *Anders. Journ. Linn. Soc., Zool.* xxi. p. 152 (1887) (Mergui Archip.); *Hartert, J. f. O.* 1889, p. 377; *Vorderm. N. T. N. I.* xlix. p. 412 (1889), li. p. 242 (1891); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 279 (1890); *Hartert, Kat. Vogelsamml.* p. 191 (1891).

Columba gigantea, *Raffl. fide G. R. Gr. List B. Brit. Mus.* Columbæ, p. 13, *in syn.* T. capellei (1856).
"Toria capellei, *Blyth*" (errore), *Moore, P. Z. S.* 1859, p. 464, *in syn.* B. capellei.

Adult male. Olive with a greyish tinge, decidedly greyer on the forehead, yellowish on the throat and on the lower breast; upper breast yellowish chestnut, bordered on the sides with pure chestnut; under tail-coverts chestnut, the shortest ones with broad buff edges; quills slate-black, the smaller upper wing-coverts, except the anterior ones, olive; the median and greater wing-coverts and the inner secondaries with broad yellow edges on the outer webs; under surface of the wings slate-grey; tail above olive, the lateral feathers with a grey apical band, about half an inch broad; the three outer tail-feathers slate-grey; tail underneath black, with a grey apical band: "bill greenish white, base olive-green; iris dark ash (or golden-yellow, *Hartert*); orbits slightly bare yellow-tinged; feet chromo-yellow" (*Wallace*). Total length 13 inches, wing 7·6, tail 5·2, bill 0·82, tarsus 0·86.

Adult female. Similar to the male, but has no chestnut colour on the upper breast, which is tinged with yellowish olive; the under tail-coverts are greenish grey, broadly edged with buffy white.

According to Schlegel, Javan specimens have the bill less robust.

Hab. Mergui Archipelago, Malay Peninsula, Sumatra, Borneo, and Java.

a. ♂ ad. sk.	Penang (*Cantor*).	India Museum.
b. ♂ ad. sk.	Penang.	Gould Coll.
c–f. ♂ ad. sk.	Selangore, April, July, and Aug. (*W. Davison*).	Hume Coll.
g–s. ♂ ♀ ad. et juv. sk.	Klang, Feb.–April (*W. Davison*).	Hume Coll.
t. ♀ ad. sk.	Malacca.	Hume Coll.
u–d'. ♂ ♀ ad. sk.	Foot of Gunnong Pulai, Johore, March (*W. Davison*).	Hume Coll.
e'–i'. ♂ ad. sk.	Johore, Aug. (*W. Davison*).	Hume Coll.
k', l'. ♂ ♀ ad. sk.	Sumatra.	Wallace Coll.
m', n'. ♂ ♀ ad. sk.	Sumatra (*A. R. Wallace*).	Tweeddale Coll.
o'. ♀ ad. sk.	Lampong, S.E. Sumatra (*E. C. Buxton*).	Tweeddale Coll.
p'. ♂ ad. sk.	? N.E. Borneo.	Salvin-Godman Coll.
q'. ♀ ad. sk.	Labuan.	Sir H. Low [C.].
r'. ♀ ad. sk.	Lawas River (*Burbidge*).	H. Veitch, Esq. [C.].

5. TRERON.

	Type.
Treron, *Vieill. Analyse*, p. 49 (1816)	T. curvirostra.
Thoria, *Hodgs. As. Res.* xix. p. 163 (1836)	T. nipalensis.
Romeris, *Hodgs. J. A. S. B.* x. 1, p. 28 (1841) (=Thoria).	

Rhamphotreron, *Heine, Nomencl. Mus. Hein. Orn.* p. 279 (1890) (=Thoria).

Range. From Eastern Bengal and Nepal to the Indo-Malay Archipelago.

Key to the Species.

a. Grey colour of the cap darker, and covering also the upper part of the cheeks; underparts greener. *nipalensis*, p. 34.

b. Grey colour of the cap lighter, especially towards the forehead, and not covering any part of the cheeks; underparts yellower ..... *nasica*, p. 37.

1. Treron nipalensis *.

Columba curvirostra, *Raffl. Tr. Linn. Soc.* xiii. 2, p. 318 (1822) (Sumatra).

Toria nipalensis, *Hodgs. As. Res.* xix. p. 164, pl. ix. fig. of the head and foot (1836); *G. R. Gr. Hand-list*, ii. p. 222, n. 9086 (1870); *Blyth, B. Burm.* p. 143 (1875).

Columba aromatica, *S. Müll.* (*nec Gm.*) *Verh. Land- en Volkenk.* p. 396 (1839–44).

Treron aromatica, part., *G. R. Gr. Gen. B.* ii. p. 467, n. 1 (1844); *id.* (*nec Gm.*) *Cat. Hodgs. Coll. B. M.* p. 121 (1846); *Gieb. Thes. Orn.* iii. p. 649 (1877).

Treron nipalensis, *Blyth, J. A. S. B.* xiv. 2, p. 847 (1845); *id. Ann. & Mag. N. H.* xix. p. 44 (1847); *G. R. Gr. Gen. B.* App. p. 23 (1849); *Blyth, Cat. B. Mus. A. S. B.* p. 228 (1849); *Bp. Consp. Av.* ii. p. 11 (1854); *id. Compt. Rend.* xxxix. p. 873 (1854), xl. p. 216, n. 14 (1855); *id. Coup d'œil Ordr. Pig.* pp. 5, 54, n. 14 (1855); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 10 (1856); *Moore, P. Z. S.* 1859, p. 464 (Malacca); *Rchnb. Tauben*, i. p. 109 (1862); *Gray, Cat. Hodgs. Coll. B. Mus.* 2nd ed. p. 66 (1863); *Jerd. B. of Ind.* iii. p. 445 (1864); *Godw.-Aust. J. A. S. B.* xliii. p. 171 (1874); *Hume, Str. Feath.* iii. p. 160 (1875); *Wald. B. Burm.* p. 143 (1875); *Hume & Davis. Str. Feath.* vi. p. 410

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* I have very little doubt that Latham's Hooked-billed Pigeon belongs to the present species; the coloured figure agrees very well with it; only there is no trace of the grey cap, as there is also no mention of it in the description.

Hook-billed Pigeon, *Lath. Syn.* ii. 2, p. 632, n. 23, pl. 59 (1783) (Tanna!); *Temm. Pig. et Gallin.* i. p. 57 (1813).

Columba curvirostra, *Gm. S. N.* i. p. 777, n. 45 (1788) (*ex Latham*); *Lath. Ind. Orn.* ii. p. 600, n. 25 (1790); *Bechst. Lath. Uebers.* ii. p. 611, pl. 60. f. 2 (1794), iv. p. 380 (1811); ? *Temm. Pig. et Gallin.* i. p. 55 (1813); *Vieill. N. D.* xxvi. p. 390 (1818); *Desm. Dict. Sc. Nat.* xl. p. 367 (1826).

Columba aromatica, var. *a. Temm. Pig. et Gallin.* i. p. 441 (1813).

Vinago aromatica, var. *β*, *Steph. Gen. Zool.* xi. 1, p. 106, pl. 4 (1819).

Columba aromatica, part., *Wagl. Syst. Av.* Columba, sp. 7 (1827).

Treron curvirostra, *Bp. Consp. Av.* ii. p. 10 (1854); *id. Compt. Rend.* xxxix. p. 873 (1854), xl. p. 216, n. 17 (1855); *id. Coup d'œil Ordre Pig.* pp. 5, 54, n. 17 (1885); *id. Compt. Rend.* xliii. p. 949 (1856); *G. R. Gr. Cat. B. Trop. Isl.* p. 39 (1859); *id. Hand-list*, ii. p. 222, n. 9081 (1870); *Wiglesw. Aves Polynes.* p. 46, n. 242 (?) (1891).

(1878); *Hume, Str. Feath.* viii. p. 109, n. 771 (1879); *Bingh. Str. Feath.* ix. p. 193 (1880); ? *Kelham, Ibis*, 1881, p. 325 (Malacca); *Salv. Cat. B. Strickl. Coll.* p. 557 (1882); *Oates, Str. Feath.* x. p. 235 (1882); *id. B. Brit. Burm.* ii. p. 306 (1883); *Anders. Journ. Linn. Soc., Zool.* xxi. p. 152 (1887) (Mergui Archip.); *Grant, Ann. & Mag. N. H.* (6) ii. p. 352 (1888); *Hume, Str. Feath.* xi. p. 289 (1888); *Salvad. Ann. Mus. Civ. Gen.* (2) v. p. 619 (1888), vii. p. 423 (1889); *Hartert, J. f. O.* 1889, p. 405; *id. Kat. Vogelsamml.* p. 191 (1891).

Treron aromaticum, *Low (nec Gm.), Sarawak*, p. 411 (1848).

Treron nepalensis, *Wall. Ibis*, 1865, p. 376 (Sumatra); *id. J. f. O.* 1866, p. 277; *Blyth, Ibis*, 1867, p. 147; *G. R. Gr. Hand-list*, ii. p. 222, n. 9081 (1870); *Tweedd. Ibis*, 1877, p. 321 (Lampong); *Salvad. Ann. Mus. Civ. Gen.* xiv. p. 240 (1879) (Sumatra); *Tirant, Bull. Com. Agr. et Ind. Cochinch.* (3) i. p. 141, n. 250 (1879); *Tweedd. Orn. Works*, p. 502 (1881).

Treron nasica, *Sharpe (nec Schleg.), Tr. Linn. Soc., Zool.* i. p. 346 (1876) (Palawan); *Tweedd. P. Z. S.* 1878, p. 623 (Palawan); *id. Orn. Works*, pp. 182, 502, 618 (1881); *Wardl. Rams. Tweedd. Orn. Works*, p. 659 (1881); *Sharpe, Ibis*, 1888, p. 202 (Palawan); *Grant, Ann. & Mag. N. H.* (6) ii. p. 352 (1888) (Banguey); *Blas. Ornis*, iv. p. 316 (1888); *Everett, P. Z. S.* 1889, p. 226; *id. Journ. Str. Br. R. As. Soc.* 1889, p. 196 (part.); *Vorderm. N. T. N. I.* xlix. p. 412 (1889), l. p. 499 (1890) (Billiton); *Whiteh. Ibis*, 1890, p. 56 (Palawan); ? *Steere, List*, p. 24 (1890) (Paragua, Mindoro); *Hartert, J. f. O.* 1891, p. 301.

Treron nasica, *Oust. (nec Schleg.) Nouv. Arch. Mus.* (2) ii. p. 290 (1879) (Hué, Annam).

Rhamphotreron nipalensis, *Heine & Rchnw. Nomencl. Mus. Hein. Orn.* p. 279 (1890).

Adult male. Crown ashy, paler on the forehead; neck, rump, upper tail-coverts, breast, and abdomen olive-green; mantle and smaller upper wing-coverts chestnut; breast with a very faint, almost imperceptible tinge of fulvous; sides leaden grey; flanks green mixed with white; under tail-coverts cinnamon; wings, except the chestnut upper wing-coverts, black; median and greater upper wing-coverts and also the secondaries edged with yellow; under surface of the wings leaden grey; tail above olive-green on the middle feathers, grey on the outer ones, which show a median black band and a broad apical grey band; tail underneath grey, with a black medial band; the apical grey band very broad: "legs and feet vary from lake-pink to coral-red; the orbital skin is pea-green; the irides vary from bright orange to yellowish red, with an inner deep blue ring more or less apparent; the gape and base of upper mandible to nostrils bright red; the rest of the bill pale yellowish, or greenish white, tipped greenish" (*Hume*). Total length about 10·4 inches, wing 5·62–5·76, tail 3·46–3·35, bill 0·6, tarsus 0·75–0·9.

Adult female. Differs from the male in having the maroon of the upper plumage replaced by olive-green, and the under tail-coverts white, or buff-white, irregularly barred with green.

Specimens from the Malay Peninsula, Sumatra, Borneo, and the Philippines are smaller and duller than those from Nepal and Tenasserim.

Hab. From Eastern Bengal and South-eastern Himalayas, extends down the Malay Peninsula to Sumatra, Borneo, and the Philippines; it occurs also in Siam and Cochinchina.

a, b. ♂ ad. sk.	Nepal.	B. H. Hodgson, Esq. [P.]. (Types of the species.)
c. ♂ ad. sk.	Nepal (*B. H. Hodgson*).	India Museum [P.]. (One of the types of species.)
d–g. ♂ ad. sk.	Tipperah.	Hume Coll.
h. ♂ ad. sk.	Suddya, April (*J. Cockburn*).	Hume Coll.
i–n. ♂ ♀ ad. sk.	Dibrughur, April, June, July (*J. R. Cripps*).	Hume Coll.
o, p. ♂ ♀ ad. sk.	N. Khasia Hills, Feb. (*A. W. Chennell*).	Tweeddale Coll.
q. ♂ ad. sk.	Cachar, June (*J. Inglis*).	Hume Coll.
r–u. ♂ ♀ ad. sk.	Tonghoo, Feb. & Dec. (*R. G. W. R.*).	Tweeddale Coll.
v. ♂ ad. sk.	Karen Hills, Jan. (*R. G. W. R.*).	Tweeddale Coll.
w–a'. ♂ ♀ ad. sk.	Pahpoon, Dec., Jan., Feb. (*W. Davison*).	Hume Coll.
b'. ♀ ad. sk.	Pahpoon, Jan. (*W. Davison*).	Salvin-Godman Coll.
c'–f'. ♂ ♀ ad. sk.	Younzaleen Creek, Dec. (*W. Davison*).	Hume Coll.
g'. ♂ ad. sk.	Kaukaryit, Aug. (*J. Darling*).	Hume Coll.
h'. ♂ ad. sk.	Myawadee, Jan. (*W. Davison*).	Hume Coll.
i'. ♂ ad. sk.	Moulmein, March (*W. Davison*).	Hume Coll.
k'. ♂ ad. sk.	Attaran Dist., March (*W. Davison*).	Hume Coll.
l', m'. ♂ ♀ ad. sk.	Meetan, Feb. (*W. Davison*).	Hume Coll.
n'. ♀ ad. sk.	Meetan, April (*W. Limborg*).	Tweeddale Coll.
o'. ♂ ad. sk.	Mooleyit, Jan. (*W. Davison*).	Hume Coll.
p', q'. ♂ ad. sk.	Amherst, Jan. (*W. Davison*).	Hume Coll.
r'–u'. ♂ ♀ ad. sk.	Tavoy, March, April (*W. Davison*).	Hume Coll.
v'. ♂ ad. sk.	Tavoy, March (*W. Limborg*).	Tweeddale Coll.
w'. ♂ ad. sk.	Near Tavoy, April (*W. Davison*).	Salvin-Godman Coll.
x', y'. ♂ ♀ ad. sk.	Tenasserim R., Nov. (*W. Davison*).	Hume Coll.
z', a''. ♂ ♀ ad. sk.	Bopyin, May, Dec. (*W. Davison*).	Hume Coll.
b''. ♀ ad. sk.	Tenasserim Town, Nov. (*W. Davison*).	Hume Coll.
c''. ♂ ad. sk.	Pakchan, Jan. (*W. Davison*).	Hume Coll.
d''–h''. ♂ ad. sk.	Bankasoon, May, Dec. (*W. Davison*).	Hume Coll.
i'', k''. ♀ ad. sk.	Malawoon, Jan. (*W. Davison*).	Hume Coll.
l'', m''. ♂ ♀ ad. sk.	Malawoon, Feb. (*W. Davison*).	Salvin-Godman Coll.
n'', o''. ♂ ♀ ad. sk.	South Tenasserim, Jan.	E. W. Oates, Esq. [C.].
p''. ♂ ad. sk.	Siam.	M. Mouhot [C.].
q''–u''. ♂ ♀ ad. sk.	Klang, Feb. (*W. Davison*).	Hume Coll.

v'', *w''*. ♂ ♀ ad. sk.	Malacca (*Cantor*).	India Museum [P.].
x'', *y''*. ♀ ad. sk.	Malacca.	A.Charlton,Esq.[P.].
z''. ♀ ad. sk.	Malacca.	Salvin-Godman Coll.
*a*³. ♀ ad. sk.	Malacca.	Hume Coll.
*b*¹–*h*³. ♂ ♀ ad. sk.	Johore, March, Aug. (*W. Davison*).	Hume Coll.
*i*³, *k*³ ♂ ♀ ad. sk.	Singapore.	Hume Coll.
*l*³, *m*³. ♂ ♀ ad. sk.	Sumatra.	Wallace Coll.
*n*³, *o*³. ♂ ♀ ad. sk.	Sumatra.	Seebohm Coll.
*p*³. ♂ ad. sk.	Sumatra.	Purchased.
*q*³. ♂ ad. sk.	Sumatra (*A. R. Wallace*).	Tweeddale Coll.
*r*³–*v*³. ♂ ♀ ad. sk.	Siedjoendjo-eng, Sumatra, Oct., Nov. (*Carl Bock*).	Tweeddale Coll.
*w*³. ♂ juv. sk.	Mt. Sago, Sumatra, Sept. (*C. B.*).	Tweeddale Coll.
*x*³. ♂ ad. sk.	Lampong, S.E. Sumatra (*E. C. Buxton*).	Tweeddale Coll.
*y*³, *z*³. ♀ ad. et ♂ imm. sk.	Billiton.	Tweeddale Coll.
*a*⁴. ♂ ad. sk.	Sarawak (*A. H. Everett*).	Tweeddale Coll.
*b*⁴. ♀ ad. sk.	Batu Sang, Borneo.	C. Hose, Esq. [C.].
*c*⁴. ♀ ad. sk.	Brunei River.	Bassett Smith, Esq. [P.].
*d*⁴. ♂ ad. sk.	Sandakan, N.E. Borneo.	W. B. Pryer [C.].
*e*⁴. ♀ juv. sk.	Baram, June.	C. Hose, Esq. [C.].
*f*⁴, *g*⁴. ♂ ♀ ad. sk.	Palawan (*A. H. Everett*).	Tweeddale Coll.
*h*⁴, *i*⁴. ♂ ♀ ad. sk.	Banguey.	A. H. Everett, Esq. [C.].

2. Treron nasica.

Treron nepalensis, *Sclat.* (*nec Hodgs.*) *P. Z. S.* 1863, p. 220 (Banjermassing).

Treron nasica, *Schleg. N. T. D.* i. p. 67 (1863) (Banjermassing and Sumatra); *Wall. Ibis*, 1863, p. 320 (Sumatra), 1865, p. 376; *id. J. f. O.* 1866, p. 277; *Schleg. N. T. D.* iii. p. 211 (1866); *Wald. Tr. Zool. Soc.* viii. 2, p. 82 (note) (1872); *Schleg. Mus. P.-B.* Columbæ, p. 55 (1873); *Elwes, P. Z. S.* 1873, p. 680; *Salvad. Ucc. Born.* p. 283 (1874); *Gieb. Thes. Orn.* iii. p. 651 (1877); *Rosenb. Malay. Archip.* p. 108 (1878); *Becc. Ann. Mus. Civ. Gen.* xiii. p. 453 (1878); *Salvad. Ann. Mus. Civ. Gen.* xiv. p. 241 (1878) (Sumatra); ? *Snellem. Sum. Exp. Vogels*, p. 47, pl. 4 * (1884); *Büttik. Not. Leyd. Mus.* ix. p. 75 (1886); ? *Tristr. Cat. Coll. B.* p. 45 (1889) (Banjermassing); *Everett, Journ. Str. Br. R. As. Soc.* 1889, p. 196 (part.); ? *Vorderm. N. T. N. I.* xlix. p. 412 (1889); ? *Steere, List*, p. 24 (1890) (Paragua, Mindoro); ? *Hartert, J. f. O.* 1891, p. 301; *Salvad. Ann. Mus. Civ. Gen.* (2) xii. p. 139 (Engano) (1892).

Treron curvirostra, *Wall. Ibis*, 1863, p. 320; *Jerd. B. of Ind.* iii. p. 446 (1864).

Toria nasica, *G. R. Gr. Hand-list*, ii. p. 322, n. 9087 (1870).

Treron massica (*errore*), *Ibis*, 1886, p. 522.

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* The bird figured is a female, and does not at all show the characters of the species.

Similar to *T. nipalensis*, but a little larger and also differing in the following points:—1st, the grey colour of the pileum is much lighter, especially in front, and comes more down on the cheeks at the base of the lower mandible; 2nd, the green colour of the underparts is more yellowish; 3rd, the feathers of the flanks are often tinged with yellow, instead of being pure white; 4th, the yellow edges on the wings are broader; 5th, the naked skin round the eyes is less extended; 6th, the soft parts are differently coloured: "iris golden orange; bill greenish white, base dark olive; feet dull pinkish purple" (*Wallace*). Total length 11 inches (*Wallace*), wing 5·75, tail 3·6, bill 0·7, tarsus 0·9.

Male. Back, scapulars, and smaller upper wing-coverts maroon, under tail-coverts cinnamon.

Female. No maroon colour on the back and on the smaller wing-coverts, which are olive-green; under tail-coverts whitish, varied with green along the middle and at the base.

Hab. Sumatra, Engano, Bangka, and Southern Borneo (?).

a. ♂ ad. sk. Sumatra. Wallace Coll.

6. OSMOTRERON.

	Type.
Dendrophassa, *Gloger, Gem. Kand- u. Hilfsb. d. Naturgesch.* p. 329 (1842)	O. aromatica (?).
Osmotreron, *Bp. Consp. Av.* ii. p. 12 (1854); *id. Compt. Rend.* xxxix. p. 874 (1854)	O. olax.

Range. From India and Burmese countries, through the Malay Archipelago as far south-east as Bouru and Timor.

Key to the Species.

I. Tail above olive-green or olive-yellow.
  A. Back of males maroon, of females olive.
    1. The maroon colour of the back broadly spread.
      a. No chestnut colour on the head.
        a. Grey colour of the upper part of the head leaving no distinct green superciliary band; on each side of the lower neck of the males, just above the shoulder, a brown-orange patch not very distinct.
          aa. Smaller, wing 5·5 inches: colouring duller; lateral tail-feathers with an ill-defined grey band across the middle; female with no orange-brown patches on the sides of the lower neck; under tail-coverts white mingled with green. *griseicauda*, p. 40.
          bb. Medium size, wing 6 inches: colour-

ing brighter: underparts yellower, and the band across the middle of the lateral tail-feathers blacker and well-defined; female differs from the male as does that of *O. griseicauda* ..... *wallacei*, p. 42.

cc. Larger, wing 6·1 to 6·37 inches: colouring much as in *O. wallacei*; horny part of the upper mandible nearly reaching to the forehead; female differs from the male as do those of *O. griseicauda* and *O. wallacei* ..... [p. 43. *sanghirensis*,

β. Grey colour of the upper part of the head leaving a distinct green superciliary band; no orange-brown patches on the sides of the lower neck.

aa. Under tail-coverts cinnamon in the males; mingled white and olive in the females.

aa. An ochreous patch across the middle of the crop-region of the male; throat green-yellow; female similar to that of *O. malabarica*, with the cap not so grey in front ..... *phayrei*, p. 43.

ββ. No ochreous patch on the middle of the crop-region; throat conspicuously yellow; female similar to that of *O. phayrei*, but with the grey of the cap lighter in front ..... *malabarica*, p. 45.

bb. Under tail-coverts of the males not cinnamon, but whitish.

aa. Smaller wing-coverts maroon; those of the bend of the wings slaty.

a^3. Underparts pale yellowish; feathers of the flanks greyish olive, with whitish edges; female similar to that of *O. axillaris*, but smaller, lighter below, and with the grey cap better defined on the hind part ..... *aromatica*, p. 47.

b^3. Underparts decidedly greener olive; feathers of the flanks dark green, with yellow edges; female similar to that of *O. aromatica*, but larger, greener below, and with the grey cap blending behind in the olive of the hind neck .. *axillaris*, p. 48.

ββ. Smaller wing-coverts, except a few of the inner ones, olive; grey cap very pale; female

similar to that of *O. floris*, but much larger ..... *chloroptera*, p. 49.

γ. Forehead and throat yellow; under tail-coverts whitish; female also easily distinguished by the yellow forehead and throat ..... *pompadora*, p. 51.

b. Head and neck chestnut in the male; tibial feathers bright yellow.

a. Breast with an ochreous-orange tinge; female has a dark grey cap, hind neck and back olive, fore neck and breast olive-green, and is easily distinguished from the females of the other species by the tibial feathers being bright yellow..... *fulvicollis*, p. 52.

β. Breast uniform chestnut like the neck; female unknown ..... *baramensis*, p. 54.

2. The maroon colour of the back confined to hind part of it ..... *teysmani*, p. 55.

B. Back of males and females olive, with no maroon colour; under tail-coverts whitish.

1. Male and female with no grey cap, the whole of the head being olive; tertials and longer scapulars grey ..... *psittacea*, p. 55.

2. Male and female with a grey cap; tertials olive like the back ..... *floris*, p. 56.

II. Tail above grey; an orange patch on the breast.

A. Back green; neck of the males vinous; upper tail-coverts tinged with rufescent.

1. Tail below with a broad apical grey band; greater part of the head of the male green; female with no vinous colour round the neck ..... *bicincta*, p. 57.

2. Tail below with a narrow apical grey band; greater part of the head of the male grey; female with no vinous colour round the neck ..... *vernans*, p. 60.

B. Back dark maroon; head and neck grey; female has a dark grey cap, grey chin, neck and back olive, tibial feathers reddish buff; easily distinguished by its diminutive size, wing 4·8 inches ..... *olax*, p. 64.

1. **Osmotreron griseicauda.** (Plate II. fig. 1.)

Columba aromatica, *Temm. & Knip* (*nec Linn.*) *Pig.* i. p. 29, pl. 5 (1808); *Temm. Pig. et Gallin.* i. pp. 50 (Java), 441 (part.) (1813); *Desm. Dict. Sc. Nat.* xl. p. 366 (part.) (1826).

Vinago aromatica, *Hartl.* (*nec Linn.*) *Syst. Verz. Brem.* p. 97 (1844) (Java).

Treron aromatica, *Blyth* (*nec Linn.*) *J. A. S. B.* xiv. 2, p. 848 (Java) (1845); *id. Ann. & Mag. N. H.* xix. p. 43 (1847); *Strickl. ibid.* p. 44 (note) (1847); *Blyth, Cat. B. Mus. A. S. B.* p. 228, n. 1381 (1849); *Bp. Consp. Av.* ii. p. 10, n. 3 (1854) (Java, Borneo!); *Pelz. Novara Reis., Vög.* p. 105 (Java) (1865); *Gieb. Thes. Orn.* iii. p. 649 (part.) (1877); ? *Hartert, Kat.* p. 191 (Java) (1891).

Treron griseicauda, *G. R. Gr. MSS.*; *id. List B. Brit. Mus.* Columbæ, p. 10 (1856) (ex patria incerta); *Schleg. N. T. D.* i. p. 66 (1863) (Java, Sumatra!), iii. pp. 210, 247 (part.) (1866); *id. Mus. P.-B.* Columbæ, p. 53 (part.) (1873) (Java and Sumatra!); ? *Rosenb. Malay. Archip.* p. 108 (1878); *Vorderm. N. T. N. I.* xlvi. p. 24 (1885) (Java); *Tristr. Cat. Coll. B.* p. 45 (part., Sumatra!) (1889).

? Treron curvirostra, *Bp. (nec Gm.) Icon. Pig.* pl. 6 (1857).

Treron pulverulenta, *Wall. Ibis*, 1863, p. 319 (Java), 1865, p. 376; *id. J. f. O.* 1866, p. 277; *G. R. Gr. Hand-list*, ii. p. 222, n. 9082 (1870); *Wald. Tr. Zool. Soc.* viii. p. 82 (1872); *Salvad. Ucc. Borneo*, p. 289 (1874); *Nichols. Ibis*, 1882, p. 67 (Java); *Salv. Cat. B. Strickl. Coll.* p. 558 (1882) (Malacca!); *Vorderm. N. T. N. I.* xlvi. p. 19 (1886); *Tristr. Cat. Coll. B.* p. 46 (1889) (Java); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 279 (Borneo!) (1890).

Treron javanica, *Schleg. De Dierent.* p. 211 (1864).

? Osmotreron from Sumatra, *Blyth, Ibis*, 1870, p. 173 (Leyden Museum).

Treron pulverulentus, *Elwes, P. Z. S.* 1873, p. 679.

Osmotreron pulverulenta, *Wald. Tr. Zool. Soc.* ix. p. 212 (1875); *Legge, B. Ceyl.* p. 729 (1880).

Adult male (type). Upper part of the head grey, a little lighter in front; the grey colour extends also under the eyes and at the base of the bill; no green superciliary stripes; neck dull olive-green; front neck and underparts brighter olive-green; on the sides of the neck lower down a dull orange patch scarcely perceptible; mantle and inner small upper wing-coverts purple-chestnut, with a slight mealy appearance; an obsolete grey tinge between the neck and the mantle; rump and upper tail-coverts yellow olive-green; sides tinged with greyish; feathers of the flanks white, olive-green along the middle or at the tip; tibial feathers olive and white; under tail-coverts cinnamon, the basal ones olive, broadly edged with white; small upper wing-coverts near the bend of the wing dark lead-grey; median wing-coverts dark olive, with bright yellow edges, forming a band across the wing; greater upper wing-coverts and secondaries black, edged with yellow; primaries black; under surface of the wing and axillaries lead-grey; central tail-feathers olive-green, the others grey with an ill-defined darker grey band across the middle, the inner ones tinged with olive-green on the outer webs; tail underneath blackish grey, with a broad grey apical band: "iris orange-red; orbits bare yellow; bill, base dark greenish, tip yellowish white; feet purple-red" (*Wallace*). Total length 10·5 inches, wing 5·5, tail 3·8, bill 0·65, tarsus 0·9.

Female. Differs from the male in having no chestnut colour on the back and on the wing-coverts, paler yellow edges to the wing-coverts and secondaries, and the under tail-coverts mingled white and olive, and edged with whitish.

I do not entertain any doubt as to the type of *T. griseicauda*, with the band on the tail *very* ashy and ill-defined, belonging to the present species.

I believe that this bird is confined to Java; still, specimens *g*, *h* were received as having been collected by Raffles in Sumatra.

Hab. Java, and perhaps also Sumatra.

a. ♂ ad. st.		Purchased. (Type of species.)
b. ♂ ad. sk.		Salvin-Godman Coll.
c, *d*. ♂ ♀ ad. sk.	E. Java.	Wallace Coll. (Types of *T. pulverulenta*, Wall.)
e, *f*. ♂ ad. sk.	E. Java (*Wallace*).	Tweeddale Coll.
g, *h*. ♂ ad. sk.	[Sumatra].	India Museum [P.].
i. Skeleton.	Java.	Purchased.

2. Osmotreron wallacei. (Plate II. fig. 2.)

Treron griseicauda, *Wall.* (*nec Gr.*) *P. Z. S.* 1862, pp. 335, 344 (Sula Islands and Celebes); *id. Ibis*, 1863, p. 319, 1865, p. 376; *id. J. f. O.* 1866, p. 277; *Schleg. N. T. D.* iii. pp. 210, 347 (part.) (1866) (specim. ex Celebes et Soula); *G. R. Gr. Hand-list*, ii. p. 222, n. 9080 (part.) (1870); *Schleg. Mus. P.-B.* Columbæ, p. 53 (part.) (1873); *Brügg. Abh. nat. Ver. Brem.* v. p. 79 (1876); *Grant, Ann. & Mag. N. H.* (6) ii. p. 352 (1888); *Tristr. Cat. Coll. B.* p. 45 (part.) (1889); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 279 (1890); *Vorderm. N. T. N. I.* li. p. 400 (1892).

Osmotreron griseicauda, *Wald.* (*nec Gr.*) *Tr. Zool. Soc.* viii. p. 82 (1872), ix. p. 212 (1875); *Salvad. Ann. Mus. Civ. Gen.* vii. p. 670 (1875) (Celebes); *Lenz, J. f. O.* 1877, p. 376; *Meyer, Ibis*, 1879, pp. 134, 146; *Legge, B. Ceyl.* p. 729 (1880); *Blas. J. f. O.* 1883, p. 138; *id. Zeitschr. ges. Orn.* 1885, p. 301 (Celebes); *Guillem. P. Z. S.* 1885, p. 556.

Treron aromatica, part., *Gieb. Thes. Orn.* iii. p. 649 (1877).

Treron sulaensis (*Schleg.*), *Mus. Paris. fide Oust. Nouv. Arch. Mus.* (2) ii. p. 291 (1879).

Adult male. Similar to that of *O. griseicauda*, from which it differs in being larger, in having more brilliant colours both on the upper and under surfaces, the orange-brown spot on the sides of the neck above the shoulder broader and more distinct, and the band across the lateral tail-feathers blacker and better defined: "bill pale yellow-green, the base dark olive-green; iris red; orbits bare green; feet red" (*Wallace*). Total length about 10·5 inches, wing 6, tail 3·8, bill 0 7, tarsus 0·9.

Female. Differs from the male as does that of *O. griseicauda*; and besides it has the edges of the median and greater wing-coverts and secondaries white, with a slight green tinge along the very edges, at least in the Celebes birds, while in those from Sula Islands these edges are yellowish white; the white under tail-coverts are more or less tinged with buff and mingled or irregularly banded with olive.

Hab. Celebes and Sula Islands.

a. ♂ ad. sk.	Makassar.	Wallace Coll. (Types of
b. ♀ ad. sk.	Makassar (*Wallace*).	Gould Coll. species.)
c. ♂ ad. sk.	Celebes.	Tweeddale Coll.
d. ♂ ad. sk.	Celebes.	Salvin-Godman Coll.
e. ♀ ad. sk.	Menado.	Tweeddale Coll.
f–*k*. ♂ ♀ ad. sk. et st.	Sula Is.	Wallace Coll.

l. ♂ ad. sk.	Sula Is. (*Wallace*).	Salvin-Godman Coll.
m. ♂ ad. sk.	Sula Is. (*Wallace*).	Gould Coll.
n, o. ♂ ♀ ad. sk.	Sula Is. (*Wallace*).	Tweeddale Coll.

3. Osmotreron sanghirensis.

Treron griseicauda, part., *Schleg. N. T. D.* iii. p. 210 (1866) (specim. ex Sanghir); *G. R. Gr. Hand-list*, ii. p. 222, n. 9080 (part.) (1870); *Schleg. Mus. P.-B.* Columbæ, p. 55 (part.) (1873) (specimen ex Siao et Sanghir).

Treron sangirensis, *Brügg. Abh. naturw. Ver. Brem.* v. p. 79 (März 1876).

Treron sanghirensis, *Salvad. Ann. Mus. Civ. Gen.* ix. p. 60 (October 1876); *Meyer, Sitz. u. Abh. Ges. Isis*, 1884, Abh. i. p. 6.

Osmotreron sanghirensis, *Blas. Ornis*, iv. p. 611 (1888).

Similar to *O. griseicauda* from Celebes, but larger and with a larger and more robust bill; the horny part of the upper mandible nearly reaching the forehead, and approaching in that respect the bill of *Treron nasica*: "iris orange; bill yellow; feet cherry-red" (*Platen*). Total length 11·40–12·18, wing 6·01–6·37, tail 3·93–4·36, bill 0·70–0·78, tarsus 0·90–1·02 (*Mus. of Genoa*).

Male. Mantle and scapulars mealy purple-chestnut; median and greater upper wing-coverts edged with yellow; under tail-coverts cinnamon (*Mus. of Genoa*).

Female. Mantle and scapulars green; median and greater upper wing-coverts edged with white, slightly tinged with greenish yellow; under tail-coverts buff, the basal ones greenish, edged with buff or whitish buff (*Mus. of Genoa*).

Hab. Sanghir Islands—Great Sanghir, Pejta, Siao.

a. ♀ ad. sk.	Sanghir Is.	Tweeddale Coll.
b. ♀ ad. sk.	Sanghir Is.	Salvin-Godman Coll.

4. Osmotreron phayrei.

Treron malabarica, part., *Blyth, J. A. S. B.* xiv. p. 852 (1845); *id. Cat. B. Mus. A. S. B.* p. 229, n. 1389 (part.) (1849).

Treron nepalensis, *Bp.* (*nec Hodgs.*) *Icon. Piy.* pl. 8 (♂) (1857).

Osmotreron malabarica, *Bp.* (*nec Jerd.*) *Icon. Piy.* pl. 11. f. 2* (♀) (1857).

Osmotreron phayrei, *Blyth, J. A. S. B.* xxxi. p. 344 (1862); *Jerd. B. of Ind.* iii. p. 451 (1864); *Blyth, Ibis*, 1867, p. 147; *Hume, Ibis*, 1870, p. 438; *G. R. Gr. Hand-list*, ii. p. 223, n. 9092 (1870); *Wald. Tr. Zool. Soc.* ix. p. 212 (1875); *Blyth & Wald. B. Burm.* p. 144 (1875); *Hume, Str. Feath.* iii. p. 162 (1875); *Hume & Davis. Str. Feath.* vi. pp. 412, 414 (1878); *Hume, Str. Feath.* viii. p. 109, n. 776 (1879); *Tirant, Bull. Com. Agr. et Ind. Cochinch.*

* Mr. Blyth ('Ibis,' 1867, p. 147) was probably right in attributing the above figure to *O. phayrei*, although Bonaparte states that it was drawn from a Malabar specimen!

(3) i. p. 140, n. 246 (1879); *Bingh. Str. Feath.* ix. p. 194 (1880); *Oates, Str. Feath.* x. p. 235 (1882); *id. B. Brit. Burm.* ii. p. 103 (1883); *Hume, Str. Feath.* xi. p. 291 (1888); *Salvad. Ann. Mus. Civ. Gen.* (2) v. p. 619 (1888) (Tenasserim); *Hartert, J. f. O.* 1889, p. 433.

Treron phayrei, *Wall. Ibis*, 1865, p. 375; *id. J. f. O.* 1866, p. 272; *Gieb. Thes. Orn.* iii. p. 652 (1877); *Tristr. Cat. Coll. B.* p. 45 (1889).

Treron phayrii, *Blanf. Ibis*, 1870, p. 469; *Salv. Cat. B. Strickl. Coll.* p. 558 (1882).

Adult male. Pileum ashy, lighter on the forehead; superciliary stripes, sides of the head, and throat yellow-green; hind neck, lower back, rump, and upper tail-coverts olive-green; mantle, scapulars, and smaller upper wing-coverts chestnut; on the upper breast a transverse dull orange band, separating the yellow-green throat from the green-olive of the underparts; sides with a greyish tinge; feathers of the flanks yellowish white, mingled with dark green; tibial feathers buff; under tail-coverts cinnamon; median wing-coverts olive-green, with yellow edges forming an oblique band on the wings; greater wing-coverts black, edged with yellow: quills black, the secondaries edged with yellow, tertiaries with broader yellow edges; wings underneath and axillaries lead-grey; centre tail-feathers olive-green, the others green at base, with a broad ashy tip and a black bar in front of the ashy, the black bar obsolete on the pair next the centrals and becoming more pronounced towards the outer tail-feathers: "legs and feet lake or purplish pink; claws and orbital skin greyish blue; bill pale bluish white, darker at the base; irides usually with an inner ring of bright blue and an outer ring of salmon or buffy pink, sometimes they are a rosy pink, at others reddish yellow" (*Davison*). Total length 11 to 11·62 inches, wing 6 to 6·25, tail 3·82 to 4, bill 0·6, tarsus 0·82 to 0·9.

Female. Has the maroon of the upper plumage replaced by green-olive; there is no orange on the breast, and the under tail-coverts are white, speckled with ashy green; size nearly the same.

Hab. From Lower Bengal and Assam to Tenasserim as far as Tavoy and east to Cochinchina.

a–d. ♂ ♀ ad. sk.	Tipperah.	Hume Coll.
e, f, g. ♂ ♀ ad. sk.	Dibrughur, Aug. (*J. R. Cripps*).	Hume Coll.
h. ♂ ad. sk.	Khasia Hills.	Tweeddale Coll.
i. ♂ ad. sk.	N. Khasia Hills (*A. W. Chennell*).	Tweeddale Coll.
k. ♂ ad. sk.	Khasia Hills (*Griffiths*).	India Museum [P.].
l. ♂ ad. sk.	Luchunpur, Assam (*A. Hardy*).	Tweeddale Coll.
m, n. ♂ ♀ ad. sk.	Assam (*H. Godwin-Austen*).	Tweeddale Coll.
o. ♂ ad. sk.	Cachar (*J. Inglis*).	Hume Coll.
p, q. ♂ ♀ ad. sk.	Cachar.	Hume Coll.
r. ♂ ad. sk.	Arrakan Hills, Jan.	Hume Coll.
s, t. ♂ ♀ ad. sk.	[Arrakan ?]	E. Blyth, Esq. [P.].
u. ♂ ad. sk.	Bassein, Pegu.	Seebohm Coll.
v. ♂ ad. sk.	Tonghoo Dist.	E. W. Oates, Esq. [C.].

w–*e'*. ♂ ♀ ad. et juv. sk.	Tonghoo, Feb., April, May, June (*R. G. W. R.*).	Tweeddale Coll.
f'. ♀ ad. sk.	Shuay-g-yeen, Jan. (*R. G. W. R.*).	Tweeddale Coll.
g'–*m'*. ♂ ♀ ad. sk.	Pahpoon, Dec., Jan., Feb. (*W. Davison*).	Hume Coll.
n', *o'*. ♂ ♀ ad. sk.	Younzaleen Ck., Dec. (*W. Davison*).	Hume Coll.
p'. ♂ ad. sk.	Myawadee, Jan. (*W. Davison*).	Hume Coll.
q'. ♂ ad. sk.	Thoungveen Valley, Nov. (*C. T. Bingham*).	Hume Coll.
r'. ♂ ad. sk.	Thoungyeen Valley, Feb.	C. T. Bingham, Esq. [C.].
s'. ♀ ad. sk.	Myawadee, March.	C. T. Bingham, Esq. [C.].
t', *u'*. ♂ ♀ ad. sk.	Thatone, Dec., Jan.	Hume Coll.
v'. ♀ ad. sk.	Attaran R., March (*W. Davison*).	Hume Coll.
w'. ♂ ad. sk.	Assoon, March (*W. Davison*).	Hume Coll.
x', *y'*. ♂ ♀ ad. sk.	Assoon, Feb. (*W. Limborg*).	Tweeddale Coll.
z'. ♂ ad. sk.	Meetan, Feb. (*W. Darison*).	Hume Coll.
a''. ♀ ad. sk.	Meetan, Feb. (*W. Limborg*).	Tweeddale Coll.
b''. ♂ ad. sk.	Letel. S. of Moulmein, March (*W. Davison*).	Hume Coll.
c''. ♂ ad. sk.	Nwallaboo, March (*W. Davison*).	Hume Coll.
d''–*q''*. ♂ ♀ ad. et pull. sk.	Tavoy, March to May (*W. Davison*).	Hume Coll.

5. Osmotreron malabarica.

Vinago aromatica, part., *Jerd. Madr. Journ. L. & Sc.* xii. p. 13, n. 287 (1840).

Vinago affinis, *Jerd. Madr. J. L. & Sc.* xii. p. 13, n. 288 (♀) (1840)*.

Vinago malabarica, *Jerd. Illustr. Orn.*, letterpress to pl. 21 (♂) (Malabar) (March 1845).

Treron malabarica, *Blyth, Journ. A. S. B.* xiv. 2, p. 852 (part.) (1845); *id. Ann. & Mag. N. H.* xix. pp. 47, 48 (1847); *G. R. Gr. Gen. B.* App. p. 23 (1849); *Blyth, Cat. B. Mus. A. S. B.* p. 229, n. 1389 (1849); *id. Journ. A. S. B.* xxi. p. 356 (1852), xxiv. p. 479 (1855); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 11 (part.?) (1856); *Sch. eg. N. T. D.* i. p. 65 (part.) (1863); *Wall. Ibis*, 1865, p. 375; *id. J. f. O.* 1866, p. 277; *Schleg. Mus. P.-B.* Columbæ, p. 52 (1873); *Gieb. Thes. Orn.* iii. p. 651 (1877); *Salv. Cat. B. Strickl. Coll.* p. 557 (1882).

Treron pompadora, part., *Strickl. Ann. & Mag. N. H.* xix. p. 48 (note) (1847).

Osmotreron malabarica, part., *Bp. Consp. Av.* ii. p. 13 (1854); *id. Compt. Rend.* xxxix. p. 875 (1854), xl. p. 216, n. 24 (1855); *id. Coup d'œil Ordr. Pig.* pp. 6, 54, n. 24 (1855); *id. Icon. Pig.* pl. xii.

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* As Jerdon himself has given up the name *affinis*, I think we must use the one bestowed by him on the male bird.

(♂) (1857); *Rchnb. Tauben*, i. p. 104, t. 241. f. 1336 (1862); *Jerd. B. Ind.* iii. p. 450 (1864); *Blyth, Ibis*, 1867, p. 147; *G. R. Gr. Hand-list*, ii. p. 223, n. 9091 (1870); *Hume, Nests & Eggs*, iii. p. 493 (1873); *id. Str. Feath.* iii. p. 162 (1875); *Fairb. Str. Feath.* iv. p. 261 (1876); *Hume, Str. Feath.* vi. p. 414 (1878), viii. p. 109 (1879).

Osmotreron affinis, *Wald. Tr. Zool. Soc.* ix. p. 213 (1875); *Tweedd. Orn. Works*, p. 376 (1881).

Adult male. Upper part of the head grey, lighter towards the forehead, and blending on the occiput with the greyish olive-green colour of the hind neck; sides of the head, including superciliary stripes, and sides of the neck olive-green; throat distinctly yellow; mantle and upper wing-coverts purple-chestnut; lower back, rump, upper tail-coverts, and central tail-feathers olive-yellow; quills and median and greater wing-coverts black; median and greater wing-coverts and also the secondaries with bright yellow edges; under surface of the quills and under wing-coverts lead-grey, the latter tinged with greenish; underparts olive-yellow; flanks olive, with broad yellowish edges to the feathers; tibial feathers olive; under tail-coverts cinnamon, the basal ones yellowish buff with greyish-green bases; lateral tail-feathers grey, with a black band about the middle, the innermost ones with the bases of the inner webs olive; tail below blackish, with a broad grey apical band: "soft basal part of the bill is glaucous green, tip ashy; iris blue, with an outer ring of pink or lake-red" (*Fairbank*); "feet pinky red" (*Jerdon*). Total length about 10·5 inches, wing 5·75, tail 4, bill 0·6, tarsus 0·8.

Female. Differs from the male in having no maroon on the back and upper wing-coverts, which are olive, and the under tail-coverts whitish, irregularly marked or banded with greyish olive.

Hab. Indian Peninsula.

a. ♂ Ad. sk.	Madras.	Seebohm Coll.
b, c. ♂ ♀ ad. sk.	Madras.	Rev. H. H. Baber [P.].
d, e. ♂ ad. sk.	Travancore.	F. W. Bourdillon, Esq. [C.].
f. ♂ ad. sk.	Asamboo, Jan.	Hume Coll.
g–k. ♂ ♀ ad. sk.	Anjango, Dec.	Hume Coll.
l, m. ♀ ad. sk.	Coorg.	Tweeddale Coll.
n, o. ♂ ♀ ad. sk.	Malabar.	Tweeddale Coll.
p. ♀ ad. sk.	Calicut.	Tweeddale Coll.
q, r. ♂ ♀ ad. sk.	Coonoor, Sept. (*R. G. W. R.*).	Tweeddale Coll.
s. ♂ ad. sk.	Nilghiris, Oct.	Hume Coll.
t, u, v. ♂ ♀ ad. sk.	Kullas, Oct.	Hume Coll.
w. ♂ ad. sk.	Kotagherry, Oct. (*Miss Cockburn*).	Hume Coll.
x–c'. ♂ ♀ ad. et juv. sk.	Wynaad, May (*W. Davison*).	Hume Coll.
d'. ♀ ad. sk.	Ahmednuggar, Sept. (*S. B. Fairbank*).	Tweeddale Coll.
e', f'. ♂ ♀ ad. sk.	S. Konkan, Jan. (*G. Vidal*).	Hume Coll.

g. ♂ ad. sk.	Khandala, May (*S. B. Fairbank*).	Hume Coll.
h'-p'. ♂ ♀ ad. et juv. sk.	Khandala, March to May (*S. B. Fairbank*).	Tweeddale Coll.

6. Osmotreron aromatica. (Plate III.)

Columba viridis amboinensis, *Briss. Orn.* i. p. 145, n. 39, pl. x. f. 2 (1760); *Bp. Consp. Av.* ii. p. 13 (1854).

? Pigeon vert d'Amboine, *D'Aubent. Pl. Enl.* 163; *Buff. Hist. Nat. Ois.* ii. p. 528 (1771); *Salvad. Orn. Pap. e Mol.* iii. p. 3 (1881).

? Columba amboinensis, *Müll.* (*nec Linn.*) *Syst. Nat. Suppl.* p. 132 (1776); *Cass. Pr. Philad. Acad.* 1864, p. 248.

Columba aromatica, *Gm. S. N.* i. p. 778, n. 47 (1788) (*ex Brisson*); *Lath. Ind. Orn.* ii. p. 599, n. 23 (1790); *Bonn. Enc. Méth.* i. p. 242, pl. 78. f. 3 (1790); *Temm. Hist. Nat. Pig.* i. p. 441 (part.) (1813); *Vieill. N. D.* xxvi. p. 392 (1880); *Steph. Gen. Zool.* xi. 1, p. 273 (1819); *Desm. Dict. Sc. Nat.* xl. p. 366 (part.) (1826); *Wagl. Syst. Av.* Columba, n. 7 (part.) (1827); *Less. Tr. d'Orn.* p. 476 (part.) (1831); *id. Compl. de Buff.* viii. p. 18 (part.) (1837), 2nd ed. p. 274 (1838).

Vinago aromatica, *Cuv. Règne An.* i. p. 457 (1817); *Steph. Gen. Zool.* xi. 1, p. 106 (part.) (1819).

Treron aromatica, *G. R. Gr. List Gen. B.* p. 57 (1840); *id. Gen. B.* ii. p. 467, n. 1 (part.) (1844); *Rchnb. Av. Syst. Nat.* p. xxvi (1852); *G. R. Gr. P. Z. S.* 1860, p. 360; ? *Rchnb. Tauben*, i. p. 109 (1862), ii. p. 181, *Suppl.* t. v. ff. 54-55 (♂), 56-57 (♀) (1862); *Wall. P. Z. S.* 1863, pp. 18, 33; *id. Ibis*, 1863, pp. 318, 319; *Finsch, Neu-Guin.* p. 176 (1865); *Wall. Ibis*, 1865, pp. 374, 396, n. 5; *id. J. f. O.* 1866, p. 277, n. 5; *Schleg. N. T. D.* iii. p. 210, and p. 346 (part.) (1866); *id. Mus. P.-B.* Columbæ, p. 52 (part., specim. from Buru) (1873); *Hein. u. Rchnw. Nomencl. Mus. Hein. Orn.* p. 279 (1890); ? *Hartert, Kat. Vogelsamml.* p. 191 (1891) (Amboina ?).

? Dendrophassa aromatica, *Glog. Gem. Hand- u. Hilfs. d. Naturg.* p. 359 (1842).

? Osmotreron axillaris, *Rchnb.* (*nec Gr.*) *Tauben*, ii. p. 180, *Novit. Suppl.* t. iv. f. 45 (1862) (*ex Pl. Enl.* 163).

Treron amboinensis, part., *G. R. Gr. Hand-list*, ii. p. 222, n. 9079 (1870).

Osmotreron aromatica, *Wald. Tr. Zool. Soc.* ix. p. 211 (1875); *Salvad. Ann. Mus. Civ. Genov.* viii. p. 380 (1876), ix. p. 195, n. 1 (1876); *id. Orn. Pap. e Mol.* iii. p. 1 (1882); *Forbes, Natural. Wander.* p. 410 (1885) (Bouru, Amboina !, Ceram !).

Columba amboinensis, *Wald.* (*nec P. L. S. Müll.*?) *Tr. Zool. Soc.* ix. p. 212 (1875).

Adult male. Upper part of the head and a band across the upper mantle grey, lighter on the forehead; superciliary stripes, sides of the head, neck, and breast bright yellow-green, duller on the hind neck; mantle and innermost smaller upper wing-coverts dark purple-chestnut; rump and upper tail-coverts olive-green; abdomen greenish grey; sides light grey; flanks green, with the edges of the feathers white; vent white, mingled with green; under tail-coverts

white, the basal ones greenish and grey at the base; anterior smaller wing-coverts and bend of the wing slate-black; rest of the wing black; median wing-coverts with the tips bright yellow, forming a very broad band on the wing; greater wing-coverts and tertiaries with broad bright yellow margins, narrower on the secondaries; under surface of the wings leaden grey; tail above dull olive-green, the lateral feathers with a broad apical grey band, before which there is a black one; tail underneath black, with a broad apical light grey band: "bill, cere, and eyelids pale dull blue; tip of the bill, in dry specimens, yellowish; iris white; feet dusky purple" (*Wallace*). Total length 11·5 inches, wing 6, tail 3·5, bill 0·7, tarsus 0·8.

Female. Differs from the male in having the mantle, the upper wing-coverts, and the scapulars dull olive, without purple-chestnut colour.

Hab. Bouru, and doubtfully Amboina, and Ceram.

a, b. ♂ ♀ ad. sk.	Bouru.	Wallace Coll.
c, d. ♂ ♀ ad. sk.	Bouru, Nov. (*H. O. Forbes*).	Salvin-Godman Coll.
e–h. ♂ ♀ ad. sk.	Moluccas (*Hoedt*?).	Tweeddale Coll.

7. **Osmotreron axillaris.** (Plate IV.)

Treron axillaris, *G. R. Gr. MS.*; *Bp. Compt. Rend.* xxxix. p. 875 (1854) (ex patria incerta), xl. p. 210, n. 16 (1855); *id. Coup d'œil Ordr. Pig.* pp. 6, 54, n. 16 (1855); *id. Compt. Rend.* xliii. p. 833 (1856); *Wall. Ibis*, 1863, p. 319; *id. Ibis*, 1865, pp. 374, 396; *id. J. f. O.* 1866, p. 277; *Salv. Cat. B. Strickl. Coll.* p. 557 (1882); *Tristr. Cat. Coll. B.* p. 45 (1889).

? Osmotreron axillaris, *Bp. Consp. Av.* ii. p. 13 (1854).

Treron aromatica, *G. R. Gr.* (*nec Gm.*) *List B. Brit. Mus.* Columbæ, p. 10 (1856) (Philippines); *Bp. Compt. Rend.* xliii. p. 833 (1856); *id. Icon. Pig.* pl. 7 (1857); *Schleg. N. T. D.* i. p. 64 (1863) (Philippines), iii. p. 346 (part.) (1866); *v. Mart. J. f. O.* 1866, p. 23; *Schleg. Mus. P.-B.* Columbæ, p. 52 (part.) (1873) (specim. from the Philippines); *Gieb. Thes. Orn.* iii. p. 649 (part.) (1877).

Treron amboinensis, part., *G. R. Gr. Hand-list*, ii. p. 222, n. 9079 (1870).

Osmotreron axillaris, *Wald. Tr. Zool. Soc.* ix. pp. 211, 212 (1875); *Sharpe, Tr. Linn. Soc., Zool.* i. pp. 346, 353 (Mindanao) (1876); *Tweedd. P. Z. S.* 1877, pp. 549 (Panay), 619 (Luzon), 764 (Zebu), 832 (Mindanao), 1878, pp. 113 (Dinagat), 287 (Negros); *Sharpe, P. Z. S.* 1879, p. 316 (Sooloo); *Tweedd. Orn. Works*, pp. 374, 375, 412, 460, 462, 473, 525, 538, 558, 572, 593 (1881); *Wardl. Rams. Tweedd. Orn Works*, p. 659 (1881); *Kutter, J. f. O.* 1883, p. 314; *Guillem. P. Z. S.* 1885, p. 268 (Sulu Isl.); *Steere, List B. & M. Steere Exp.* p. 24 (Mindanao, Basilan, Guimaras, Panay) (1890).

Adult male. Similar to that of *O. aromatica*, but somewhat larger; the bill larger and more powerful; the maroon of the mantle covering a larger surface, extending nearly to the bend of the wing, and of a lighter shade; the ventral plumage more yellowish green, and the thigh-coverts or feathers of the flanks bright yellow, with very dark green spots along the middle: "iris bluish

green; feet greyish green; bill light green, base dark red" (*Everett*). Total length about 11 inches, wing 6, tail 3·5, bill 0·66, tarsus 0·9.

Female. Differs from the male in having no chestnut on the back and on the wing-coverts, which are of an olive colour; the scapulars and outer webs of the tertials also are olive; there is no grey band bordering the upper part of the mantle.

A Sulu bird mentioned in the following list looks larger and finer, but is not otherwise different.

Hab. Philippines and Sulu Islands.

a, b. ♂ ♀ ad. st.	Philippines.	Cuming Coll. (Type of species.)
c, d. ♂ ♀ ad. sk.	Manilla.	Gould Coll.
e, f, g. ♂ ♀ ad. sk.	Luzon, Jan., April (*A. B. Meyer*).	Tweeddale Coll.
h, i. ♂ ♀ ad. sk.	Monte Alban, March (*A. H. Everett*).	Salvin-Godman Coll.
k, l. ♂ ♀ ad. sk.	Monte Alban, Feb., March (*A. H. Everett*).	Tweeddale Coll.
m. ♀ ad. sk.	Ilo Ilo, Panay.	'Challenger' Exp.
n. ♂ ad. sk.	Negros, March (*A. B. Meyer*).	Tweeddale Coll.
o. ♂ ad. sk.	Valencia, Aug. (*A. H. Everett*).	Tweeddale Coll.
p. ♀ ad. sk.	Dumaguete, Aug. (*A. H. Everett*).	Tweeddale Coll.
q, r. ♂ ♀ ad. sk.	Cebu, April (*A. H. Everett*).	Tweeddale Coll.
s. ♀ ad. sk.	Cebu, March (*A. H. Everett*).	Salvin-Godman Coll.
t. ♂ ad. sk.	Guimaras, March (*A. B. Meyer*).	Tweeddale Coll.
u. ♀ ad. sk.	Butuan River, Mindanao, May (*A. H. Everett*).	Tweeddale Coll.
v. ♂ ad. sk.	Zamboanga.	Prof. Steere [C.].
w. ♂ ad. sk.	Sulu Is. (*Burbidge*).	H. Veitch, Esq. [P.].

8. Osmotreron chloroptera.

Treron chloroptera, *Blyth, J. A. S. B.* xiv. 2, p. 852 (Nicobars) (1845), xv. p. 369 (1846); *id. Ann. & Mag. N. H.* xix. p. 48 (1847); *G. R. Gr. Gen. B.* App. p. 23 (1849); *Hartl. J. f. O.* 1855, p. 319; *Wall. Ibis*, 1865, p. 375; *id. J. f. O.* 1866, p. 277; *Gieb. Thes. Orn.* iii. p. 650 (1877); *Tristr. Cat. Coll. B.* p. 45 (1889).

Osmotreron chloroptera, *Bp. Consp. Av.* ii. p. 13 (1854); *id. Compt. Rend.* xxxix. p. 875 (1854), xl. p. 816, n. 25 (1855); *id. Coup d'œil Ordr. Pig.* pp. 6, 54, n. 25 (1855); *id. Icon. des Pig.* letter-press to pl. xii. (1857); *Rchnb. Tauben*, i. p. 108 (1862); *Blyth, Mouat's App.* p. 361 (1863) (*Ibis*, 1863, p. 465); *Jerd. B. of Ind.* iii. p. 451 (1864); *Blyth, Ibis*, 1867, p. 148; *Beav. & Tytl. Ibis*, 1867, p. 331; *G. R. Gr. Hand-list*, ii. p. 223, n. 9009 (1870); *Ball, J. A. S. B.* xli. 2, p. 286 (1872); *id. Str. Feath.* i. p. 78 (1873); *Wald. Ibis*, 1873, p. 313 (Andamans); *Hume, Str. Feath.* ii. p. 258 (1874), iii. p. 162 (1875); *Wald. Tr. Zool. Soc.* ix.

p. 212 (1875); *Hume, Str. Feath.* vi. p. 414 (1878), viii. p. 109, n. 777 bis (1879); *Legge, B. of Ceyl.* p. 729 (1880); *W. L. Sclat. Ibis*, 1892, p. 86 (type).

Adult male. Forehead, crown, and occiput very delicate French grey, slightly paler on the forehead; sides of the head, including superciliary stripes, throat, neck, upper back, and underparts yellowish green, greyer on the upper back, yellower on the underparts; middle of the back, scapulars, and some of the inner coverts maroon; lower back, rump, and upper tail-coverts yellowish olive; feathers of the flanks olive, edged on both sides with yellowish white; under tail-coverts olive, with broad yellowish-white edges and narrow yellowish margins; smaller and median wing-coverts olive, the latter and the greater wing-coverts, and also the secondaries, edged with yellow; greater wing-coverts and quills black; under wing-coverts and quills underneath lead-grey; central tail-feathers yellowish olive like the rump, the rest of the tail-feathers with broad grey tips, above these black, but more or less suffused along the edges and at the base of the outer webs with yellowish olive; tail below blackish, with a broad apical grey band: "legs and feet purplish pink; bill pale leaden blue, almost white at tip, darker and tinged greenish at the base; the irides have three rings—the first pale, the second darker blue, and the third pinkish buff" (*Hume*). Total length 13·5 to 11·5 inches, wing 7·12 to 6·5, tail 4·4 to 3·5, bill 0·85 to 0·74, tarsus 1 to 0·82.

Female. Differs from the male in having no maroon colour on the back, scapulars, and inner wing-coverts, which are of an olive colour like the smaller upper wing-coverts of the male.

Young birds have the back olive-green with no maroon in the male; the grey colour of the head is more or less tinged with green.

According to Mr. Hume, the Nicobar birds differ from the Andaman ones in having less yellow on the outer margins of the secondaries, and generally also on those of the greater coverts, but I have failed to find that such is the case.

Hab. Nicobars and Andamans.

a. ♂ ad. sk.	Nicobars.	India Museum [P.].
b. ♂ ad. sk.	Camorta Is., Feb. (*W. Davison*).	Hume Coll.
c. ♂ ad. sk.	Camorta Is., Dec. (*R. J. Wimberley*).	Tweeddale Coll.
d–g. ♂ ♀ ad. et ♂ juv. sk.	Montshall, Feb., March (*W. Davison*).	Hume Coll.
h. ♂ ad. sk.	Kalchall, Feb. (*W. Davison*).	Hume Coll.
i. ♂ ad. sk.	Kondul Is., March.	Hume Coll.
k–o. ♂ ♀ ad. sk.	S. Andamans, Feb., March (*R. G. W. R.*).	Tweeddale Coll.
p, q, r. ♂ ad. sk.	S. Andamans, Aug. (*R. J. Wimberley*).	Hume Coll.
s. ♂ ad. sk.	S. Andamans, Aug. (*R. J. Wimberley*).	Salvin-Godman Coll.

t. ♀ ad. sk.	Port Blair, Aug. (*R. J. Wimberley*).	Salvin-Godman Coll.
u–*y*. ♂ ♀ ad. et ♀ imm. sk.	Port Blair, Feb., Aug. (*R. J. Wimberley*).	Hume Coll.
z. ♂ ad. sk.	Port Blair, July (*R. J. Wimberley*).	Sharpe Coll.
a'–*g'*. ♂ ♀ ad. sk.	Mt. Harriet, Dec. (*W. Davison*).	Hume Coll.
h', *i'*, *k'*. ♂ ♀ ad. sk.	Aberdeen, April and May (*W. Davison*).	Hume Coll.
l'. ♂ ad. sk.	Sound Is., April.	Hume Coll.
m', *n'*. ♂ ♀ ad. sk.	Jolly Boys Is.,Macpherson's Strs., March.	Hume Coll.

9. Osmotreron pompadora.

Pompadour Pigeon, *Brown*, *Illustr.* pl. 19 (♂) (1776) (Ceylon); *Lath. Syn.* ii. 2, p. 624, n. 12 (1783); *id. Suppl.* p. 198 (1787); *id. Gen. Hist.* viii. p. 73 (1823).

Yellow-faced Pigeon, *Brown*, *Illustr.* pl. 20 (♀) (1776) (Ceylon).

Columba pompadora, *Gm. S. N.* i. 2, p. 775, n. 9 (1788) (*ex Brown*); *Lath. Ind. Orn.* ii. p. 597, n. 12 (1790); *Desm. Dict. Sc. Nat.* xl. p. 367 (1826); *Blyth, J. A. S. B.* xiv. p. 852 (1845); *id. Ann. & Mag. N. H.* xix. p. 48 (1847); *Strickl. ibid.*, note (1847).

Columba pompadoura, *Bonn. Enc. Méth.* i. p. 240 (1790); *Vieill. N. D.* xxvi. p. 391 (1818).

Colombar aromatique, var., *Temm. & Knip, Pig.* i. *Addition*, p. 31 (1808–11).

Columba aromatica, var. *b*, *Temm. Hist. Nat. Pig.* p. 442 (1813).

Vinago aromatica, var. *γ*, *Steph. Gen. Zool.* xi. 1, p. 106 (1819).

Treron aromatica, *Steph. Gen. Zool.* xiv. 1, p. 273 (part.) (1826); *Rchnb. Syn. Av.* Columbariæ, f. 1336 (*ex Selby*) (1847).

Columba phœnicoptera, part., *Wagl. Syst. Av.* Columba, sp. 1 (1827).

Vinago aromatica, part., *Cuv. Règn. An.* 2nd ed. i. p. 492 (1829).

? Vinago aromatica, *Selb.* (*nec Gm.*) *Nat. Libr., Pigeons*, p. 95, pl. 1 (bad) (1835).

Vinago aromatica, var., *Jerd. Madr. Journ.* xii. p. 13, n. 287 (1840).

Treron st. thomæ, part., *G. R. Gr. Gen. B.* ii. p. 467, n. 4 (1844).

Treron malabarica, part., *Blyth, Cat. B. Mus. A. S. B.* p. 229 (1849); *Kelaart, Prodr. Cat.* p. 130 (1852); *Layard* (*nec Jerd.*), *Ann. & Mag. N. H.* (2) xiv. p. 58 (1854); *Hartl. J. f. O.* 1854, p. 158; *Schleg. N. T. D.* i. p. 65 (part.) (1863).

Treron pompadora, *Blyth, J. A. S. B.* xxi. p. 356 (1852), xxiv. p. 479 (note) (1855); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 11 (1856); *Wall. Ibis*, 1865, p. 335; *id. J. f. O.* 1866, p. 277; *Gieb. Thes. Orn.* ii. p. 652 (1877); *Salv. Cat. B. Strickl. Coll.* p. 557 (Madras) (1882); *Tristr. Cat. Coll. B.* p. 46 (1889).

Osmotreron malabarica, part., *Bp. Consp. Av.* ii. p. 13 (1854).

Osmotreron pompadora, *Bp. Consp. Av.* ii. p. 14 (1854); *id. Compt. Rend.* xxxix. p. 875 (1854), xl. p. 216, n. 28 (1855); *id. Coup d'œil Ordr. Pig.* pp. 7, 54, n. 28 (1855); *id. Icon. Pig.* pl. xi. f. 1 (♀) (1857); *G. R. Gr. Hand-list*, ii. p. 223, n. 9093 (1870); *Wald. Tr. Zool. Soc.* ix. p. 212 (1875); *Hume, Str. Feath.* iii. p. 162 (1875); *Legge, B. of Ceyl.* pp. 728, 1218 (1880); *Tweedd. Orn. Works*, p. 376 (1881).

Treron flavogularis, *Blyth, J. A. S. B.* xxvi. p. 225 (1857) (Ceylon), xxxi. p. 344 (1862) (Malabar! and Ceylon); *Wall. Ibis*, 1865,

p. 375; *id. J. f. O.* 1866, p. 277; *Gieb. Thes. Orn.* iii. p. 651 (1877); *Tristr. Cat. Coll. B.* p. 45 (Madras!) (1889).

Osmotreron flavogularis, *Jerd. B. of Ind.* iii. p. 452 (1864); *Blyth, Ibis*, 1865, p. 45, 1867, p. 148; *G. R. Gr. Hand-list*, ii. p. 223, n. 9098 (1870); *Holdsw. P. Z. S.* 1872, p. 464; *Legge, Ibis*, 1874, p. 25; *Hume, Str. Feath.* iii. p. 162 (1875).

Osmotreron pompadoura, *Jerd. B. of Ind.* iii. p. 452 (1864); *Holdsw. P. Z. S.* 1872, p. 465; *Legge, Ibis*, 1875, p. 399; *Hume, Str. Feath.* vi. p. 414 (1878), viii. p. 100, n. 777 (1879); *E. L. Layard, Ibis*, 1880, pp. 283, 284.

Treron pompadura, *Schleg. Mus. P.-B.* Columbæ, p. 52 (1873).

Adult male. Forehead, face, and loral region greenish yellow, blending into the purer yellow of the throat and the greenish grey of the crown and occiput; hind neck and upper mantle greyish olive; interscapular region, scapulars, and smaller wing-coverts chestnut; lower back, rump, upper tail-coverts, and central tail-feathers olive-green; underparts yellowish green; flanks olive, with the edges of the feathers yellowish white; under tail-coverts whitish, more or less tinged with pale buff, edged with pale yellowish green, and with the bases of the feathers speckled with ashy olive; quills black, the primaries with narrow yellow edges; secondaries and greater and median wing-coverts also black, with broad bright yellow edges; under wing-coverts and quills below lead-grey, the former with greenish edges; lateral tail-feathers grey, with a black band about the middle, and more or less tinged with olive at the base of the outer webs; tail below blackish, with a broad grey apical band: "iris carmine-red, with a cobalt inner circle; eyelid glaucous green; bill glaucous green, paling to bluish on the apical portion; legs and feet purple-red" (*Legge*). Length 10·6 to 10·3 inches, wing 5·7 to 5·5, tail 3·8 to 3·5, bill 0·6, tarsus 0·8.

Female. Forehead and face not so yellow, but the throat the same as in the male; upper surface olive-green, without the maroon mantle, and the white under tail-coverts freckled or banded with green.

Hab. Ceylon.

I do not think there is sufficient evidence that this bird has been found in Southern India.

a, b. ♂ ♀ ad. sk.	Ceylon.	Cuming Coll.
c, d, e. ♂ ♀ ad. sk.	Ceylon, Jan. (*S. Chapman*).	Tweeddale Coll.
f. ♂ ad. sk.	Ceylon, Dec. (*Messrs. Hart Bros.*).	Hume Coll.
g. ♀ ad. sk.	Ceylon.	Gould Coll.
h. ♀ ad. sk.	S. Ceylon, Aug. (*W. V. Legge*).	Hume Coll.

10. Osmotreron fulvicollis.

Columba aromatica, var., *Temm. & Knip, Pig.* i. p. 30, pl. 6 (1808–11); *Temm. Pig. et Gallin.* i. p. 53 (1813); *Desm. Dict. Sc. Nat.* xl. p. 366 (1826).

Columba aromatica, var. *d, Temm. Pig. et Gallin.* i. p. 442 (1813).

Columba fulvicollis, *Wagl. Syst. Av.* Columba, sp. 8 (1827); *Schleg. Handl. Dierk.* i. p. 412 (1857).

Columba ferruginea, *Wagl.* (*nec Forst.*) *Isis*, 1829, p. 738.

Columba cinnamomea, *Temm.* (*nec Sw.*) *Pl. Col.* livr. 93 (1835); *Schleg. Handl. Dierk.* i. p. 412 (1857).

Treron fulvicollis, *G. R. Gr. List B. Brit. Mus.* Gallinæ, p. 3 (1844); *id. Gen. B.* ii. p. 467, n. 2 (1844); *Strickl. P. Z. S.* 1846, p. 105 (Malacca); *Blyth, Cat. B. Mus. A. S. B.* p. 339 (1849); *Rchnb. Syn. Av.* Columbariæ, *Nov.* f. 3369 (1851); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 11 (1856) (Malacca); *Sclat. P. Z. S.* 1863, p. 220 (Borneo); *Schleg. N. T. D.* i. p. 68 (1863) (Borneo, Bangka); *Wall. Ibis*, 1863, p. 320 (Sumatra); *Schleg. De Dierent.* p. 211 (1864); *Wall. Ibis*, 1865, p. 375; *Pelz. Novara Reis., Vög.* pp. 105, 162 (1865); *Mart. J. f. O.* 1866, p. 23; *Wall. J. f. O.* 1866, p. 277; *Schleg. Mus. P.-B.* Columbæ, p. 57 (1873); *Salvad. Ucc. Born.* p. 288 (1874); *Gieb. Thes. Orn.* iii. p. 651 (1877); ? *Sharpe, Ibis*, 1879, p. 265; *Blas. Verh. z.-b. Gesellsch. Wien*, xxxiii. p. 66 (1883); *Kutter, J. f. O.* 1885, p. 352; *Tristr. Cat. Coll. B.* p. 45 (1889); *Everett, Journ. Str. Br. As. Soc.* 1889, p. 196 (part.) (1889); *Sharpe, Ibis*, 1890, pp. 134, 283; *Wardl. Rams. Ibis*, 1890, p. 227; *Vorderm. N. T. N. I.* l. pp. 405, 501 (1890) (Billiton).

Treron tenuirostre, *Eyt. Ann. & Mag. Nat. Hist.* xvi. p. 230 (1845); *Hartl. Rev. Zool.* 1846, p. 4.

Treron cinnamomeum, *Low, Sarawak*, p. 411 (1848).

Osmotreron fulvicollis, part., *Bp. Consp. Av.* ii. p. 14 (1854) (Tanna excl.); *id. Compt. Rend.* xxxix. p. 875 (part.) (1854), xl. p. 216, n. 27 (1855); *id. Coup d'œil Ordr. Pig.* pp. 7, 54, n. 27 (1855); *Rchnb. Tauben*, i. p. 103 (part.), t. 240 *b.* f. 3369 (1862); *G. R. Gr. Hand-list*, ii. p. 223, n. 9094 (1870); *Wald. Tr. Zool. Soc.* ix. pp. 211, 213 (syn. emend.) (1875); *Hume & Dav. Str. Feath.* vi. p. 413 (1878); ? *Tiraut, Bull. Com. Agr. et Ind. Cochinch.* (3) i. p. 141, n. 249 (1879); *Hume, Str. Feath.* viii. pp. 67, 109 (1879); *Kelh. Ibis*, 1881, p. 527; *Tweedd. Orn. Works*, pp. 375, 376 (1881); *Oates, B. Brit. Burm.* ii. p. 311 (1883); *Sharpe, P. Z. S.* 1887, p. 433 (Perak); *Salvad. Ann. Mus. Civ. Gen.* (2) iv. p. 557 (1887) (Nias); *Vorderm. N. T. N. I.* xlix. p. 412 (1889); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 279 (1890); *Hartert, Kat. Vogelsamml.* p. 191 (1891).

Treron (Osmotreron) fulvicollis, *Oust. Bull. Soc. Philom.* (8) iv. p. 117 (1892).

Adult male. Head, neck, and breast cinnamon, the latter with an ochraceous orange tinge; mantle and smaller upper wing-coverts purple-chestnut; rump slate-black, shading off into the olive upper tail-coverts; abdomen grey tinged with olive-green; sides leaden grey; vent canary-yellow with slate-grey spots, base of the feathers white; tibial plumes yellow; under tail-coverts cinnamon; wings, except the smaller wing-coverts, black, median and greater wing-coverts and secondaries edged with bright yellow; under surface of the wings leaden grey; tail above dull olive, lateral feathers grey, with a broad black band towards the apical part, tail underneath black with a grey apical band: "iris buffy pink or red; orbital skin plumbeous green; edge of the eyelid orange; upper mandible to just beyond nostril and lower mandible to angle of gonys deep red, rest of the bill dead white tinged strongly with greenish blue; feet purplish pink" (*Davison*). Total length 10·5 inches, wing 5·7, tail 3·75, bill 0·52, tarsus 0·75.

Female. General colour olive, brighter on the sides of the head

and below; pileum grey; chin with a slight rufous tinge; median and greater wing-coverts and secondaries edged with yellow; feathers of the flanks olive along the centre, and broadly edged with yellowish white on both sides; under tail-coverts pale buff, more or less greyish along the middle.

Hab. Southern Tenasserim, Cochinchina, Malay Peninsula, Sumatra, Nias, Bangka, Billiton, and Borneo.

a–i. ♂ ♀ ad. et ♀ imm. sk.	Bankasoon, Dec. (*W. Davison*).	Hume Coll.
k. ♂ juv. sk.	Bankasoon, Dec. (*W. Davison*).	Salvin-Godman Coll.
l, m. ♀ ad sk.	Malawoon, March, April (*W. Davison*).	Hume Coll.
n, o. ♂ ad. sk.	Kossoom, May (*J. Darling*).	Hume Coll.
p. ♂ ad. sk.	Dingding R., Feb. (*W. Davison*).	Hume Coll.
q, r, s. ♂ ♀ ad. sk.	Salang, Feb., March (*J. Darling*).	Hume Coll.
t. ♂ ad. sk.	Salang, March (*J. Darling*).	Salvin-Godman Coll.
u, v. ♂ ad. sk.	Klang, March, May (*W. Davison*).	Hume Coll.
w. ♂ ad. sk.	Malacca.	A. Charlton, Esq. [P.].
x. ♂ ad. sk.	Perak.	L. Wray, Esq. [P.].
y, z. ♂ ♀ ad. sk.	Johore, Sept. (*W. Davison*).	Hume Coll.
a' b'. ♂ ♀ ad. sk.	Sumatra.	Wallace Coll.
c'. ♂ ad. sk. [var.].	Sumatra (*Raffles*).	Gould Coll.
d', e'. ♂ ad. et juv. sk.	Billiton.	Tweeddale Coll.
f'. ♂ ad. st.	Borneo.	Leyden Museum [P.].
g'. ♂ ad. sk.	Borneo?	Gould Coll.
h'. Skeleton.	Sumatra.	Purchased.

11. Osmotreron baramensis.

Treron fulvicollis, *Sharpe* (*nec Wagl.*), *P. Z. S.* 1881, p. 779 (Sandakan); ? *Blas. Verh. z.-b. Ges. Wien*, xxxiii. p. 66 (1883); *Everett, Journ. Str. Br. R. As. Soc.* 1889, p. 196 (part.) (1889).

Treron fulvicollis baramensis, *Meyer, J. f. O.* 1891, p. 73 (Baram, Borneo).

Male. Similar to that of *O. fulvicollis* (Wagl.), but the neck and breast entirely of a chestnut colour, the latter without the ochraceous orange tinge. Wing 5·8 inches, tail 3·43, bill 0·55, tarsus 0·66.

Hab. N. Borneo.

a. ♂ ad. sk.	Sandakan, N.E. Borneo.	W. B. Pryer, Esq. [C.].
b. ♂ ad. sk.	Brunei R.	Dr. Basset Smith [P.].

12. Osmotreron teysmani.

Treron teysmannii, *Schleg. Not. Leyd. Mus.* i. p. 103 (1879) (Sumba or Sandalwood Isl.); *Rchnw. u. Schal. J. f. O.* 1879, p. 425.

Adult. "Front, throat, rump, and upper tail-coverts greenish yellow; underpart of body yellowish green; the middle pair of tail-feathers yellowish olive; the other tail-feathers greyish at the base, passing into a large band of dark bluish grey, while more than the last third of these feathers is of a greyish-white colour, which spreads also over the upperside of the other tail-feathers, but decreases towards the outer feathers; under tail-coverts green, very broadly margined with fulvous yellowish white; crown and sides of the head, neck, small wing-coverts, shoulder-feathers, and mantle green with a greyish hue, with the exception of the hinder part of the mantle and the hinder shoulder-feathers, which are both of a brownish red, inclining to purple; quills black, but the tertiaries washed with green; middle wing-coverts black, very broadly margined with lemon-yellow, like the tertiaries; great wing-coverts with somewhat smaller (edges) and primaries with very small yellow margins; entire underside of the wing bluish ashy grey" (*Schlegel*). "Wing 6·4 to 6·8 inches, tail 4·2 to 4·5, tarsus 1, bill 0·8" (*Büttikofer in litt.*).

"This species is very closely allied to *O. psittacea* from Timor, but it may at once be distinguished by the vinous colour of the scapulars and lower mantle, as well as by the more yellow, instead of green, face" (*Büttikofer in litt.*).

Hab. Sumba or Sandalwood Island.

13. Osmotreron psittacea.

Columba psittacea, *Temm. & Knip, Pig.* i. p. 28, pl. 4 (1808) (Timor); *Temm. Hist. Nat. Pig.* i. pp. 47, 440 (1813); *Vieill. N. D.* xxvi. p. 391 (1818); *id. Enc. Méth.* i. p. 384 (1823); *Desm. Dict. Sc. Nat.* xl. p. 365 (1826).

Vinago psittacea, *Steph. Gen. Zool.* xi. 1, p. 112 (1819); *Cuv. Règn. An.* 2nd ed. i. p. 492 (1829).

Treron psittacea, *Steph. Gen. Zool.* xiv. 1, p. 274 (1826); *G. R. Gr. Gen. B.* ii. p. 467, n. 6 (1844); *Rchnb. Syn. Av. Novit.* f. 3368 (1851) (*ex Temminck*); *Bp. Consp. Av.* ii. p. 10 (1854); *id. Compt. Rend.* xl. p. 216, n. 18 (1855); *id. Coup d'œil Ordr. Pig.* pp. 5, 54, n. 18 (1855); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 12 (1856); *Rchnb. Tauben*, i. p. 108, t. 240 *b.* f. 3368 (1862); *Wall. P. Z. S.* 1863, pp. 486, 496; *id. Ibis*, 1865, p. 375; *id. J. f. O.* 1866, p. 277; *Schleg. N. T. D.* iii. p. 212 (1866); *G. R. Gr. Hand-list*, ii. p. 222, n. 9084 (1870); *Schleg. Mus. P.-B.* Columbæ, p. 59 (1873) (Timor, Semao); *Gieb. Thes. Orn.* iii. p. 652 (1877); *Pelz. & Lor. Ann. Naturh. Hofmus.* iii. p. 46 (1888); *Hartert, Kat. Vogelsamml.* p. 191 (1891).

Treron psittacina, *Wagl. Syst. Av.* Columba, sp. 4 (1827).

Osmotreron psittacea, *Bp. Compt. Rend.* xliii. p. 833 (1856).

Adult male. Yellowish green, with a faint tinge of greyish on the mantle; wings and upper tail-coverts a little brighter; sides and

under surface of the wings light grey; flanks and vent white mingled with green; under tail-coverts buffy white, with long narrow green dashes along the middle, changing into grey towards the base; smaller wing-coverts along the cubital edge and bend of the wing slate-grey; rest of the smaller wing-coverts yellowish green like the back; quills slate-black; median and greater wing-coverts and secondaries broadly edged with yellow; tertials and longer scapulars grey; central tail-feathers yellowish green, next pair yellowish green on the outer web, grey towards the base of the inner web, whitish at the tip, before which there is a black spot; remaining tail-feathers grey at the base, with a broad greyish-white band at the tip, and a black band about the middle; tail below grey at the base, and with a broad apical white band, and a narrower black band about the middle: "iris orange-buff; bill pale greenish, bluish at the base; orbits bare, blue and greenish; feet purple" (*Wallace*). Total length 12·5 inches, wing 6·5, tail 4·25, bill 0·68, tarsus 0·9.

Female. Like the male (*Wallace*), but a specimen of this sex from Semao has the edges of the median and greater wing-coverts and of the secondaries paler, yellowish white.

Hab. Timor and Semao.

a. Ad. st.	Timor.	Leyden Museum [P.].
b, *c*. Ad. sk.	Timor.	J. B. Jukes, Esq. [P.].
d. ♂ ad sk.	Timor Coupong (*Wallace*).	Gould Coll.
e. ♂ ad sk.	E. Timor.	Wallace Coll.
f. ♀ ad. sk.	Timor, April (*H. O. Forbes*).	Salvin-Godman Coll.
g. ♀ ad. sk.	Semao.	Wallace Coll.

14. Osmotreron floris.

Treron floris, *Wall. P. Z. S.* 1863, pp. 486, 496 (Flores and Solor); *id. Ibis*, 1865, p. 376; *id. J. f. O.* 1866, p. 277; *Schleg. N. T. D.* iii. p. 212 (1866) (Sumbawa); *G. R. Gr. Hand-list*, ii. p. 222, n. 9083 (1870); *Schleg. Mus. P.-B.* Columbæ, p. 59 (1873); *Gieb. Thes. Orn.* iii. p. 651 (1877); *Tristr. Cat. Coll. B.* p. 45 (1889).

Similar to *O. psittacea*, but smaller, and with the crown tinged with grey, paler on the forehead, and with the white under tail-coverts crossed by narrow zigzag green bands; the tertials and longer scapulars olive like the back, with no grey tinge; the yellow edges on the wings paler: "bill greenish lead-colour, with the tip yellowish; orbits bare; feet red" (*Wallace*). Total length 11·5 inches, wing 6, tail 4·3, bill 0·65.

Female. Differs from the male "in the rather duskier back and more green spotted under tail-coverts" (*Wallace*).

Hab. Flores, Solor, and Sumbawa.

a, *b*. Ad. sk.	Flores.	Wallace Coll. (Types of species.)
c. Ad. sk.	Flores.	Wallace Coll.
d. Ad. sk.	Flores (*Wallace*).	Tweeddale Coll.
e. Ad. sk.	Flores (*Wallace*).	Salvin-Godman Coll.
f. Ad. sk.	Flores (*Wallace*).	Seebohm Coll.
g. Ad. sk.	Solor	Wallace Coll.

15. Osmotreron bicincta.

Columba vernans, *Temm. & Knip* (*nec Linn.*), *Pig.* pls. 10 (♂), 11 (♀) (1808); *Temm. Hist. Nat. Pig.* i. pp. 70, 443 (part.) (1813); *Desm. Dict. Sc. Nat.* xl. p. 369 (part.) (1826); *Wagl. Syst. Av.* Columba, sp. 9 (part.) (1827); *Less. Tr. d'Orn.* p. 476 (part.) (1831).
Vinago vernans, part., *Steph. Gen. Zool.* xi. p. 113 (1819).
Vinago bicincta, *Jerd. Madr. Journ.* xii. p. 13, n. 289 (1840) (♂); *Hartl. Erst. Nachtr. Syst. Verz.* p. 16, n. 174 (1846); *Jerd. Ill. Ind. Orn.* pl. 21 (1847).
Vinago unicolor, *Jerd. Madr. Journ.* xii. p. 14, n. 289 bis (1840) (♀).
Vinago bicincta, *Strickl. Ann. & Mag. N. H.* xii. p. 38 (1844).
Treron vernans, part., *G. R. Gr. Gen. B.* ii. p. 467, n. 7 (1844).
Treron bicincta, *Blyth, J. A. S. B.* xiv. 2, p. 851 (1845); *id. Cat. B. Mus. A. S. B.* p. 229, n. 1386 (1849); *Kelaart, Prodr. Cat.* p. 130 (1852); *Layard, Ann. & Mag. N. H.* (2) xiv. p. 57 (1854); *Hartl. J. f. O.* 1854, p. 158; *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 12 (1856); *Gould, P. Z. S.* 1859, pp. 150 (Tenasserim), 151 (Siam); *Gray, Cat. Hodgs. Coll. B. M.* 2nd ed. p. 66 (1863); *Schleg. N. T. D.* i. p. 70 (1863); *Blyth, P. Z. S.* 1863, p. 371; *Wall. Ibis*, 1861, pp. 375, 396; *id. J. f. O.* 1866, p. 277; *Schleg. Mus. P.-B.* Columbæ, p. 51 (1873); *Gieb. Thes. Orn.* iii. p. 650 (1877); *Salv. Cat. B. Strickl. Coll.* p. 557 (1882); *Tristr. Cat. Coll. B.* p. 45 (1889).
Treron multicolor, *Rchnb. Syn. Av.* f. 1342 (1847).
Treron purpurea, *G. R. Gr.* (*nec Gm.*) *Gen. B.* App. p. 23 (1849).
Osmotreron bicincta, *Bp. Consp. Av.* ii. p. 12 (1854); *id. Compt. Rend.* xxxix. p. 874 (1854), xl. p. 216, n. 22 (1855); *id. Coup d'œil Ordre Pig.* pp. 6, 54, n. 22 (1855); *Rchnb. Tauben*, i. p. 105, t. 266. f. 2874, t. 241. f. 1342 (1862); *Jerd. B. of Ind.* iii. p. 449 (1864); *Beav. Ibis*, 1868, p. 371; *G. R. Gr. Hand-list*, ii. p. 223, n. 9097 (1870); *Hume, Ibis*, 1870, p. 438; *Wald. Tr. Zool. Soc.* viii. p. 114 (1872) (Malacca); *Holdsw. P. Z. S.* 1872, p. 465; *Elwes, P. Z. S.* 1873, p. 668; *Ball, Str. Feath.* ii. p. 423 (1874); *Hume, Nests & Eggs*, iii. p. 493 (1874); *Legge, Ibis*, 1874, p. 25, 1875, p. 399; *Blyth & Wald. B. Burma*, p. 144 (1875); *Hume, Str. Feath.* iii. p. 162 (1875); *Armstr. Str. Feath.* iv. p. 337 (1876); *Oates, Str. Feath.* v. p. 163 (1877); *Hume & Davis. Str. Feath.* vi. pp. 411, 414 (1878); *Ball, Str. Feath.* vii. p. 224 (1878); *Tiraut, Bull. Com. Agr. et Ind. Cochinch.* (3) i. p. 140, n. 248 (1879); *Hume, Str. Feath.* viii. p. 109, n. 774 (1879); *E. L. Layard, Ibis*, 1880, p. 283; *Legge, B. of Ceyl.* pp. 725, 1218 (1881); *Tweedd. Orn. Works*, p. 211 (1881); *Oates, Str. Feath.* x. p. 235 (1882); *id. B. of Brit. Burm.* ii. p. 308 (1883); *Sclat. List Vert. An.* 8th ed. p. 445 (1883); *A. Müll. J. f. O.* 1885, p. 159 (Salanga Isl.); *Anders. Journ. Linn. Soc., Zool.* xxi. p. 152 (Mergui Archip.) (1887); *Salvad. Ann. Mus. Civ. Gen.* (2) iv. p. 610 (1887); *Hume & Cripps, Str. Feath.* xi. p. 291 (1888); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 279 (1890).
Osmotreron domvilii, *Swinh. Ibis*, 1870, p. 354 (Hainan); *G. R. Gr. Hand-list*, ii. p. 223, n. 9101 (1870); *Swinh. P. Z. S.* 1871, p. 396; *Elwes, P. Z. S.* 1873, p. 668; *David & Oust. Ois. Chine*, p. 380 (1877).
Osmotreron domvillei (!), *Blyth, B. Burm.* p. 144 (1875).
Treron domvillei, *Gieb. Thes. Orn.* iii. p. 651 (1877).

Adult male. Forehead, face, and throat yellowish green, becoming greener on the fore neck and crown, and, passing thence into delicate grey-blue on the hind neck and upper part of interscapular region; back, scapulars, wing-coverts, and tertials brownish green, passing into greenish brown on the upper tail-coverts; quills ashy black, the greater coverts and lowermost tertials with primrose-yellow margins; primaries and secondaries with narrow yellowish-white margins; tail bluish ashy, with a median dark band and the terminal band lighter than the base, and showing whitish beneath; a narrow lilac band across the upper part of chest, succeeded by a broader band of orange-sienna; breast yellowish green, passing into yellow on the abdomen, and into bluish cinereous on the flanks; centres of tibial plumes ashy green, and the margins yellowish; under tail-coverts cinnamon, the basal feathers with white outer edges; under wing-coverts concolorous with the flanks: "legs and feet carnation pink; bill pale greenish, or bluish white; irides with an inner ring of bright blue, and an outer ring of buffy pink" (*Davison*). Total length 11·12–12·12 inches, wing 6·42–6·75, tail 3·75–4·5, bill 0·55, tarsus 0·85–1.

Female. Has the blue of the hind neck of less extent, but darker than the male; the upper surface is more overcast with brownish; the chest wants the lilac and orange bands; under tail-coverts whitish, the inner webs mostly cinnamon, and the bases of the feathers dappled with ashy.

Young. Similar to the female: "outer circle of the iris reddish yellow" (*Legge*).

Specimens from Ceylon are smaller: "length 10·3–10·6, wing 5·5–5·8, tail 3·6–3·8" (*Legge*).

Hab. Sub-Himalayan region, Eastern Central Provinces of India and Burmese countries, as far east as Cochinchina and Hainan, and also the Malay Peninsula, with the island of Salanga, and Ceylon.

a, b. ♂ ad. sk.	Ceylon, March (*S. Chapman*).	Tweeddale Coll.
c–f. ♂ ad. sk.	Ceylon (*Nevill*).	Tweeddale Coll.
g. ♀ ad. sk.	Ceylon (*Messrs. Hart Bros.*).	Hume Coll.
h. Ad. st.	Madras.	Rev. H. H. Baber [P.].
i, k. ♂ ♀ ad. sk.	Madras.	Dr. T. C. Jerdon [P.]. (Types of species.)
l, m, n. ♂ ♀ ad. sk.	Maunbhoom, Jan., March, Dec. (*R. C. Beavan*).	Tweeddale Coll.
o. ♀ ad. sk.	Nepal (*Hodgson*).	India Museum [P.].
p. ♂ ad. sk.	Bhotan Doars, April (*L. Mandelli*).	Hume Coll.
q, r. ♂ ad. sk.	Tipperah, March, April.	Hume Coll.
s, t. ♂ ad. sk.	Dacca.	Hume Coll.
u, v. ♂ ad. sk.	Suddya, April (*J. Cockburn*).	Hume Coll.
w, x, y. ♂ ad. sk.	Dibrughur, April, May (*J. R. Cripps*).	Hume Coll.

z, *a'*, *b'*. ♂ ♀ ad. sk.	Dollah, April (*J. Cockburn*).	Hume Coll.
c', *d'*. ♂ ♀ ad. sk.	Cachar, April & May (*J. Inglis*).	Hume Coll.
e', *f'*. ♂ ad. sk.	Tonghoo, Oct. & Dec. (*R. G. W. R.*).	Tweeddale Coll.
g', *h'*. ♀ ad. sk.	Lower Pegu, April.	E. W. Oates, Esq. [C.].
i'. ♂ ad. sk.	Pegu, Dec. (*R. G. W. R.*).	Tweeddale Coll.
k', *l'*, *m'*. ♂ ♀ ad. sk.	N. Pegu, Feb. (*E. W. Oates*).	Hume Coll.
n'. ♂ ad. sk.	N. Pegu, Feb.	E. W. Oates, Esq. [C.].
o'. ♀ ad. sk.	Rangoon.	Hume Coll.
p'. ♀ ad. sk.	China Ba Keer, Dec. (*J. Armstrong*).	Hume Coll.
q'. ♂ ad. sk.	Elephant Point, Jan. (*J. Armstrong*).	Hume Coll.
r'. ♀ ad. sk.	Pigeon's Island, Feb.	Hume Coll.
s'. ♂ ad. sk.	Kyouk Phyou, April (*J. Armstrong*).	Hume Coll.
t'. ♂ ad. sk.	Pahpoon, Jan. (*W. Davison*).	Hume Coll.
u'. ♀ ad. sk.	Kaukaryit, Oct. (*J. Darling*).	Hume Coll.
v'. ♂ ad. sk.	Myawadee, Jan. (*W. Davison*).	Hume Coll.
w', *x'*, *y'*. ♂ ♀ ad. sk.	Attaran R., March (*W. Davison*).	Hume Coll.
z'. ♂ ad. sk.	Moulmein, March (*W. Davison*).	Hume Coll.
a'', *b''*. ♂ ad. sk.	Pabyouk, March (*W. Davison*).	Hume Coll.
c''. ♂ ad. sk.	Assoon, March (*W. Davison*).	Hume Coll.
d''. ♀ ad. sk.	Wanghraw Creek, Feb. (*J. Armstrong*).	Hume Coll.
e''–h''. ♂ ♀ ad. sk.	Karope, March (*W. Davison*).	Hume Coll.
i''. ♂ ad. sk.	Karope, March (*W. Davison*).	Salvin-Godman Coll.
k''–o''. ♂ ♀ ad. sk.	Amherst, Jan. (*W. Davison*).	Hume Coll.
p'', *q''*, *r''*. ♂ ad. sk.	Tavoy, April, May, Dec. (*W. Davison*).	Hume Coll.
s'', *t''*. ♀ ad. et ♂ imm. sk.	Mergui, Dec. (*W. Davison*).	Hume Coll.
u''. ♀ ad. sk.	Mergui, Jan. (*W. Davison*).	Salvin-Godman Coll.
v'', *w''*, *x''*. ♂ ♀ ad. sk.	Pakchan, Jan. (*W. Davison*).	Hume Coll.
*y''–b*³. ♂ ♀ ad. sk.	Malawoon, Jan., Feb. (*W. Davison*).	Hume Coll.
*c*³. ♀ ad. sk.	Malacca, July.	Hume Coll.
*d*³. ♀ ad. sk.	Siam (*Schomburgk*).	Gould Coll.
*e*³. ♂ ad. sk.	Hainan, Feb. (*R. Swinhoe*).	Tweeddale Coll.
*f*³, *g*³. ♂ ♀ ad. sk.	Hainan, Feb. (*R. Swinhoe*). (Types of *O. domvilii*, Swinh.)	Seebohm Coll.
*h*³. Skeleton.	Madras.	Purchased.

16. Osmotreron vernans.

Columba viridis philippinensis, *Briss. Orn.* i. p. 143, t. 11. f. 1 (1760).

Columba vernans, *Linn. Mant.* p. 526 (1771) (*ex Brisson*); *Gm. S. N.* i. 2, p. 789, n. 69 (1788); *Lath. Ind. Orn.* ii. p. 599, n. 22 (1790); *Bonn. Enc. Méth.* i. p. 239 (1790); *Temm. Hist. Nat. Pig.* i. pp. 70, 443 (part.) (1813); *Vieill. N. D.* xxvi. p. 392 (1818); *Horsf. Tr. Linn. Soc.* xiii. 1, p. 182 (1821) (Java); *Raffl. Tr. Linn. Soc.* xiii. 2, p. 318 (1822); *Desm. Dict. Hist. Nat.* xl. p. 369 (part.) (1826); *Wagl. Syst. Av.* Columba, sp. 9 (1827) (syn. emend.); *Rosenb. Versl. Eil. Nias*, p. 20 (18—?).

Pigeon vert des Philippines, *D'Aubent. Pl. Enl.* 138; *Buff. Hist. Nat. Ois.* ii. p. 527 (1781).

Columba viridis, *L. S. Müll.* (*nec Linn.*) *S. N. Suppl.* p. 132 (1776) (*ex Daubenton*); *Scop. Del. Flor. et Faun. Insubr.* ii. p. 94, n. 95 (1786) (*ex Sonnerat*); *Cass. Pr. Ac. Philad.* 1864, p. 248.

Pigeon verd de l'Isle de Luçon et d'Antigue, *Sonn. Voy. Nouv. Guin.* p. 110, pls. 64 (♂), 65 (♀) (1776).

Purple Pigeon, *Brown, Illustr.* p. 42, pl. 18 (1776) (Java); *Lath. Syn.* ii. 2, p. 628, n. 78 (1783); *id. Gen. Hist.* viii. p. 76 (1823).

Parrot Pigeon, *Lath. Syn.* ii. 2, p. 629, n. 20 (1783); *id. Gen. Hist.* viii. p. 75 (1823).

Columba purpurea, *Gm. S. N.* i. 2, p. 784, n. 61 (1788); *Lath. Ind. Orn.* ii. p. 599, n. 20 (1790); *Bonn. Enc. Méth.* i. p. 241, pl. 78. f. 1 (1790); *Vieill. N. D.* xxvi. p. 359 (1818); *Desm. Dict. Sc. Nat.* xl. p. 374 (1826); *Rosenb. Versl. Eil. Nias*, p. 20 (18—?).

Vinago vernans, *Cuv. Règn. An.* i. p. 457 (1817); *Steph. Gen. Zool.* vi. p. 113 (part.) (1819); *Cuv. Règn. An.* 2nd ed. i. p. 492 (syn. emend.) (1829); *Eyt. P. Z. S.* 1839, p. 107 (Malacca).

Treron vernans, *Steph. Gen. Zool.* xiv. 1, p. 274 (1826); *G. R. Gr. Gen. B.* ii. p. 467, n. 7 (part.) (1844); *Strickl. Ann. & Mag. N. H.* xiii. p. 38 (part.) (1844); *Blyth, J. A. S. B.* xiv. 2, p. 851 (1845); *Rchnb. Syn. Av.* ff. 1340-41 (1847); *Motl. & Dillw. Contr. Nat. Hist. Lab.* p. 30 (1855); *Cass. Narr. Exped. Amer. Squadr. etc.* p. 243 (1856); *id. J. f. O.* 1858, p. 450; *G. R. Gr. P. Z. S.* 1860, p. 360; *Wall. Ibis*, 1863, p. 320; *Sclat. P. Z. S.* 1863, p. 220; *Schleg. N. T. D.* i. p. 70 (1863); *id. De Dierent.* p. 211 (1864); *Pelz. Novara Reise, Vög.* p. 105 (1865); *Schleg. Mus. P.-B.* Columbæ, p. 49 (1873); *Salvad. Ucc. Born.* p. 286 (1874); *Sharpe, P. Z. S.* 1875, p. 110; *Brüggem. Abh. nat. Ver. Brem.* v. p. 79 (*var.*, Borneo) (1876), pp. 461, 529 (1877); *Gieb. Thes. Orn.* iii. p. 652 (1877); *Rosenb. Malay. Archip.* p. 68 (1878); *Sharpe, P. Z. S.* 1879, p. 348; *Blas. Jahr. Ver. Nat. Braunschw.* 1881, p. 59; *Sharpe, P. Z. S.* 1881, p. 799; *Vorderm. N. T. N. I.* xlii. p. 89 (1882) (Java); *Salv. Cat. B. Strickl. Coll.* p. 556 (1882); *Snellem. Sum.-Exp., Vogels*, p. 47 (1884); *Guillem. P. Z. S.* 1885, p. 509 (Sumbawa); *Vorderm. N. T. N. I.* xlv. p. 397 (1886); *Büttik. Not. Leyd. Mus.* ix. p. 75 (1886); *Vorderm. N. T. N. I.* xlvi. p. 235 (1886); *Blas. Ornis*, iv. p. 316 (1888); *Everett, P. Z. S.* 1889, p. 225; *id. Journ. Str. Br. R. As. Soc.* 1889, p. 196; *Tristr. Cat. Coll. B.* p. 46 (1889); *Vorderm. N. T. N. I.* l. p. 501 (1890) (Billiton); *Sharpe, Ibis*, 1890, pp. 134, 283.

Columba vernans, var., *Less. Tr. d'Orn.* p. 426 (1831).

Treron viridis, *Blyth, Cat. B. Mus. A. S. B.* p. 229, n. 1387 (1849) (Malacca, Pinang); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 12

(1856); ? *Gould, P. Z. S.* 1859, p. 151 (Siam); *Wall. Ibis*, 1865, p. 374; *id. J. f. O.* 1866, p. 277; *Mart. J. f. O.* 1886, p. 23; *Rosenb. Malay. Archip.* p. 220 (1878); *Sclat. List Vert. An.* 8th ed. p. 445 (1883).

Osmotreron vernans, *Bp. Consp. Av.* ii. p. 12 (1854); *id. Compt. Rend.* xxxix. p. 874 (1854), xl. p. 216, n. 23 (1855); *id. Coup d'œil Ordr. Pig.* pp. 6, 54, n. 23 (1855); *id. Icon. des Pig.* pl. xiii. (1857); *Rchnb. Tauben*, i. p. 105, t. 241. ff. 1340–41 (1862), ii. p. 180 (1862); *Wald. Tr. Zool. Soc.* viii. 2, pp. 81, 113 (1872); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 7 (1873); *Wald. Tr. Zool. Soc.* ix. pp. 210, 251 (1875) (Luzon); *Sharpe, Tr. Linn. Soc., Zool.* i. p. 346 (Panay) (1876); *Tweedd. Ibis*, 1877, p. 321 (Lampong); *id. P. Z. S.* 1877, p. 764 (Cebu), 1878, p. 623 (Palawan), 1878, p. 951 (Mindanao); *Hume & Davis. Str. Feath.* vi. p. 411 (1878); *Hume, t. c.* p. 414 (1878); *id. Str. Feath.* viii. pp. 67, 109 (1879); *Tweedd. P. Z. S.* 1879, p. 73 (Basilan); *Sharpe, P. Z. S.* 1879, p. 315 (Sooloo); *Tirant, Bull. Com. Agr. et Ind. Cochinch.* (3) i. p. 140, n. 247 (1879); *Salvad. Ann. Mus. Civ. Gen.* xiv. p. 242 (1879) (Sumatra); *Tweedd. Orn. Works*, pp. 182, 211, 374, 412, 503. 537, 618, 623, 642, 650 (1881); *Wardl. Rams. Tweedd. Orn. Works*, App. p. 659 (1881); *Kelh. Ibis*, 1881, p. 526 (Perak); *Salvad Orn. Pap. e Mol.* iii. p. 3 (1882); *Nichols. Ibis*, 1882, p. 65; *Blas. J. f. O.* 1883, p. 138 (Celebes); *Oates, B. Brit. Burm.* ii. p. 309 (1883); *Guillem. P. Z. S.* 1885, pp. 268, 416, 509 (Sumbawa); *Blas. Zeitschr. f. ges. Orn.* 1886, p. 127 (Celebes); *Anders. Journ. Linn. Soc., Zool.* xxi. p. 152 (1887) (Mergui Archip.); *Salvad. Ann. Mus. Civ. Gen.* (2) iv. pp. 523 (Sumatra), 557 (Nias) (1887); *Sharpe, Ibis*, 1888, p. 202; *Vorderm. N. T. N. I.* xlix. p. 412 (1889); *Hartert, J. f. O.* 1889, p. 376; *Whitehead, Ibis*, 1890, p. 56 (Palawan); *Steere, List B. & M. Steere Exp.* p. 24 (1890) (Paragua, Mindanao, Guimaras, Panay, Siguijor, Luzon); *Hartert, Kat. Vogelsamml.* p. 191 (1891).

Osmotreron viridis, *Moore, P. Z. S.* 1859, p. 465 (Malacca, Pinang); *G. R. Gr. Hand-list*, ii. p. 223, n. 9096 (1870); *Hume, Str. Feath.* i. p. 461 (1873) (Acheen), iii. p. 162 (1875); *Blyth, B. Burm.* p. 144 (1875); *A. Müller, J. f. O.* 1882, p. 431 (Salanga Isl.), 1885, p. 159 (Salanga); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 279 (1890).

Treron griseicapilla, *Schleg. N. T. D.* i. p. 70 (1863) (Sumatra, Bangka); *Salvad. Ucc. Born.* p. 288 (1874).

Treron vernalis (*errore*), *Pelz. Novara Reise, Vög.* p. 176 (Index) (1865).

Treron (Osmotreron) vernans, *Stoliczka, J. A. S. B.* xxxix. 2, p. 330 (1870); *Oust. Bull. Soc. Philom.* (8) iv. p. 117 (1892).

Treron chlorops, *Salvad. Ucc. Born.* p. 288 (1874) (Celebes and Java).

Adult male. Green; head, chin, and throat grey; forehead, sides of the head, and throat with a faint greenish tinge; neck all round vinaceous purple; on the breast a deep orange band or patch; abdomen yellowish green; sides and wing-lining pale slate-grey; flanks and vent-feathers pale yellow, mingled with grey; tibial plumes pale yellow; under tail-coverts chestnut; mantle, back, and smaller and median upper wing-coverts dull grass-green; upper tail-coverts tinged with rufescent; primaries, secondaries, and their greater coverts black; greater wing-coverts and tertiaries broadly margined with pale yellow; tail-feathers dark slate-grey, all but the central

ones with a broad subterminal black band, a trace of the same on the central feathers; tail with a narrow grey tipping; tail below black, with a narrow grey tipping: "irides with three rings, the outer one rose-pink, the next Prussian blue, the innermost ultramarine-blue; bill pale plumbeous; cere dirty yellow; feet carnation pink, or pale lake-red" (*Davison*). Total length 10·75 to 11 inches, wing 5·25 to 5·85, tail 3·5 to 4, bill 0·56, tarsus 0·83.

Female. Differs from the male in having the head, neck, and breast green, with a dull yellowish tinge on the forehead, sides of the head, throat, and breast; besides the under tail-coverts are buffish white, more or less suffused, generally on the inner web, but sometimes on both, with pale dull cinnamon, which again is often freckled or powdered in patches with dark grey or greenish grey: no grey on the head, no vinous colour round the neck, and no orange patch on the breast.

Young male. Resembles the female, but with some trace of the vinaceous purple colour on the neck, and of the brown orange on the breast.

Young female. Has the rufescent colour of the upper tail-coverts scarcely visible, and the central tail-feathers more or less tinged with green.

Some specimens have the forehead and throat more or less tinged with greenish, but they are not confined to a particular locality.

I have seen in the Museum of Paris a variety entirely of a canary-yellow.

Hab. Siam and Cochinchina, south of Tenasserim, Malay Peninsula, and also Sumatra, Nias, Bangka, Billiton, Java, Sumbawa, Borneo, the Philippines, Sulu Islands, and Celebes.

a. ♂ ad. sk.	Siam (*Mouhot*).	Gould Coll.
b, *c*. ♂ ad. sk.	Siam.	Purchased.
d. ♂ ad. sk.	Siam.	Seebohm Coll.
e, *f*, *g*. ♀ ad. sk.	Cochinchina.	M. St. Pierre [P.].
h. ♂ ad. sk.	Cambodja.	Tweeddale Coll.
i–*o*. ♂ ♀ ad. sk.	Mergui, Jan., Feb., Nov., Dec. (*W. Davison*).	Hume Coll.
p. ♂ ad. st.	Tenasserim.	J. D. C. Packman, Esq. [P.]
q–*t*. ♂ ♀ ad. sk.	Pakchan, Jan. (*W. Davison*).	Hume Coll.
u, *v*. ♀ ad. sk.	Bankasoon, April (*W. Davison*).	Hume Coll.
w–*b'*. ♂ ♀ ad. et ♀ juv. sk.	Malawoon, Jan., Feb., April (*W. Davison*).	Hume Coll.
c'–*f'*. ♂ ♀ ad. et ♀ juv. sk.	Kossoon, April, May, July (*J. Darling*).	Hume Coll.
g', *h'*. ♂ ad. sk.	Selangore, Dec., Jan. (*W. Davison*).	Hume Coll.
i'–*q'*. ♂ ad. sk.	Klang, Jan., Feb., March, May–July (*W. Davison*).	Hume Coll.
r'. ♂ ad. sk.	Pinang (*Cantor*).	India Museum [P.].
s'. ♂ ad. sk.	Pinang.	Wallace Coll.
t'. ♀ ad. sk.	Pinang (*Wallace*).	Salvin-Godman Coll.

u'–*d''*. ♂ ♀ ad. et ♂ imm. sk.	Salang, Feb., July (*J. Darling*).	Hume Coll.
e''. ♀ ad. sk.	Tongkah, Jan. (*J. Darling*).	Hume Coll.
f''. ♂ ad. sk.	Taroar, Feb. (*J. Darling*).	Hume Coll.
g'', *h''*. ♂ ♀ ad. sk.	Tapraw, April (*J. Darling*).	Hume Coll.
i''. ♂ ad. sk.	Dingding R., Feb. (*W. Davison*).	Hume Coll.
k''. ♂ ad. sk.	Dingding R., Feb. (*W. Davison*).	Salvin-Godman Coll.
l'', *m''*. ♂ ad. sk.	Dingding R., Feb.	A. McKinlay, Esq. [P.].
n''. ♀ ad. sk.	Pulo Seban, Oct. (*W. Davison*).	Hume Coll.
o'', *p''*. ♀ ad. sk. et st.	Malacca.	A. Charlton, Esq. [P.].
q''–*t''*. ♂ ♀ ad. sk.	Malacca, July.	Hume Coll.
u'', *v''*, *w''*. ♂ ♀ ad. sk.	Malacca (*Cantor*).	India Museum [P.].
x'', *y''*, *z''*. ♂ ♀ ad. sk.	Malacca, Aug. (*R. G. W. R.*).	Tweeddale Coll.
a^3. ♂ ad. sk.	Malacca.	Salvin-Godman Coll.
b^3, *c*^{3}, *d*^{3}. ♂ ♀ ad. sk.	Singapore Isl., Feb., Dec. (*W. Davison*).	Hume Coll.
e^3. ♂ ad. sk.	Sumatra (*Raffles*).	India Museum.
f^3. ♀ ad. sk.	Sumatra.	Wallace Coll.
g^3–*k*^{3}. ♂ ♀ ad. sk.	Sumatra (*C. Bock*).	Tweeddale Coll.
l^3, *m*^{3}. ♂ ad. sk.	Acheen, Sumatra, Feb. (*W. Davison*).	Tweeddale Coll.
n^3. ♂ ad. sk.	Lampong, S.E. Sumatra (*E. C. Buxton*).	Tweeddale Coll.
o^3. ♂ ad. st.	Java.	J. Inskipp, Esq. [P.].
p^3. ♂ juv. sk.	Java.	Purchased.
q^3, *r*^{3}. ♂ ad. sk.	Java (*Horsfield*).	India Museum [P.].
s^3. ♂ ad. sk.	Labuan.	Tweeddale Coll.
t^3, *u*^{3}. ♂ ♀ ad. sk.	Labuan (*Low*).	Sharpe Coll.
v^3. ♂ ad. sk.	Labuan (*Low*).	Salvin-Godman Coll.
w^3. ♂ ad. sk.	Belidah, Sarawak, May (*A. H. Everett*).	Tweeddale Coll.
x^3. ♂ ad. sk.	Sarawak.	Wallace Coll.
y^3. ♂ ad. sk.	Brunei R.	Dr. Bassett Smith [P.].
z^3, *a*^{4}. ♂ ♀ ad. sk.	N.E. Borneo.	Salvin-Godman Coll.
b^4. ♀ ad. sk.	Papar, N. Borneo (*A. H. Everett*).	Salvin-Godman Coll.
c^4, *d*^{4}. ♂ ♀ ad. sk.	Omadal Is.	A. McKinlay, Esq. [P.].
e^4, *f*^{4}. ♂ ♀ ad. sk. et st.	Philippine Is.	Cuming Coll.
g^4. ♀ ad. sk.	Palawan, Jan. (*A. H. Everett*).	Tweeddale Coll.
h^4, *i*^{4}. ♂ ♀ ad. sk.	Manilla (*Maitland Heriot*).	Salvin-Godman Coll.
k^4. ♂ ad. sk.	Manilla.	Gould Coll.
l^4. ♀ ad. sk.	Luzon, April (*A. B. Meyer*).	Tweeddale Coll.
m^4. ♂ ad. sk.	Panay.	Prof. Steere [C.].
n^4, *o*^{4}. ♂ ♀ ad. sk.	N. Bohol, Oct. (*A. H. Everett*).	Tweeddale Coll.

p^4. ♂ ad. sk.	Cebu, April (*A. H. Everett*).	Tweeddale Coll.
q^4, r^4, s^4. ♂ ♀ ad. sk.	Mactan, Aug. (*A. H. Everett*).	Tweeddale Coll.
t^4, u^4. ♂ ♀ ad. sk.	Zamboanga, March, May (*A. H. Everett*).	Tweeddale Coll.
v^4. ♂ ad. sk.	Zamboanga, April (*A. H. Everett*).	Salvin-Godman Coll.
w^4. ♀ ad. sk.	Basilan, May (*A. H. Everett*).	Tweeddale Coll.
x^4. ♀ ad. sk.	Sulu Is. (*Burbidge*).	H. Veitch, Esq. [P.].
y^4, z^4, a^5. ♂ ad. sk.	Makassar.	Wallace Coll.
b^5. ♀ ad. sk.	Makassar (*Wallace*).	Gould Coll.
c^5, d^5, e^5. ♂ ♀ ad. sk.	Celebes.	Tweeddale Coll.
f^5. Skeleton.	Java.	Purchased.
g^5. Skeleton.	Java.	Purchased.
h^5. Skeleton.		Zoological Soc. Coll.

17. Osmotreron olax.

Columba olax, *Temm. Pl. Col.* 241 (livr. 41, 1823) (Sumatra); *Desm. Dict. Sc. Nat.* xl. p. 370 (1826); *Wagl. Syst. Av.* Columba, sp. 10 (1827); *Less. Tr. d'Orn.* p. 476 (1831); *Prév. & Knip, Pig.* ii. p. 23, pl. 12 (1838–43).

Treron olax, *Steph. Gen. Zool.* xiv. 1, p. 273 (1826); *G. R. Gr. Gen. B.* ii. p. 467, n. 3 (1844); *Rchnb. Syn. Av.* ff. 1338–39 (1847); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 11 (1856); *Sclat. P. Z. S.* 1863, p. 220 (Borneo); *Schleg. N. T. D.* i. p. 69 (1863) (Java, Borneo, Sumatra); *Wall. Ibis*, 1863, p. 320 (Malacca); *id. Ibis*, 1865, p. 375; *id. J. f. O.* 1866, p. 277; *Schleg. Mus. P.-B.* Columbæ, p. 56 (1873); *Salvad. Ucc. Born.* p. 289 (1874); *Sharpe, Ibis*, 1876, p. 51; *Gieb. Thes. Orn.* iii. p. 651 (1877); *Rosenb. Malay. Archip.* p. 108 (1878); *Sharpe, P. Z. S.* 1879, p. 348 (Labuan); *id. Ibis*, 1879, p. 265; *Kelham, Ibis*, 1881, p. 525; *Blas. & Nehr. Jahr. Ver. Nat. Braunschw.* 1881, p. 59 (Jambusan); *Salv. Cat. B. Strickl. Coll.* p. 558 (1882); *Nichols. Ibis*, 1883, p. 90; *Vorderm. N. T. N. I.* xlvi. p. 235 (1886); *Pelz. & Lor. Ann. Naturh. Hofmus* iii. p. 46 (1888); *Vorderm. N. T. N. I.* xlix. p. 412 (1889); *Everett, Journ. Str. Br. R. As. Soc.* 1889, p. 196; *Tristr. Cat. Coll. B.* p. 45 (1889).

Vinago olax, *Cuv. Règn. An.* i. p. 492 (1829); *Eyt. P. Z. S.* 1839, p. 107 (Malacca); *Hartl. Syst. Verz. Brem.* p. 98 (1844).

Osmotreron olax, *Bp. Consp. Av.* ii. p. 15 (1854) (Java); *id. Compt. Rend.* xxxix. p. 874 (1854), xl. p. 216, n. 29 (1855); *id. Coup d'œil Ordr. Pig.* pp. 6, 54, n. 29 (1855); *Moore, P. Z. S.* 1859, p. 465 (Malacca); *Rchnb. Tauben*, i. p. 103, t. 241, ff. 1338–39 (1862), ii. p. 180 (1862); *G. R. Gr. Hand-list*, ii. p. 223, n. 9095 (1870); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 7 (1873); *Wald. Tr. Zool. Soc.* ix. p. 212 (1875); *Tweedd. Ibis*, 1877, p. 321; *Hume, Str. Feath.* viii. p. 67 (1879) (Malacca, Pulo Seban, Nealys, Johore, Singapore); *Tweedd. Orn. Works*, pp. 376, 503 (1881); *Nichols. Ibis*, 1882, p. 64; *Salvad. Orn. Pap. e Mol.* iii. p. 3 (1882); *Guillem. P. Z. S.* 1885, p. 416 (Silam); *Hartert, J. f. O.* 1889, p. 376; *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 279 (1890); *Hartert, Kat. Vogelsamml.* p. 191 (1891).

Treron (Osmotreron) olax, *Stoliczka, J. A. S. B.* xxxix. 2, p. 330 (1870) (Wellesley Province and Pinang).

Adult male. Head, nape, throat, rump, upper tail-coverts, and flanks slate-grey, paler on the forehead and throat; mantle and smaller upper wing-coverts dark purple-chestnut, rest of the wing above black; median and greater wing-coverts and secondaries narrowly edged with pale yellow; breast with a buff-orange patch; lower breast and abdomen olive-green; tibial plumes buff; vent pale cinnamon, mingled with slate-green; under tail-coverts cinnamon: tail above slate-black with an apical leaden-grey band, underneath black with an apical grey band: "iris white, bill pale greenish horn-colour, base pale olive; feet coral-red" (*Wallace*). Total length about 8 inches, wing 4·8, tail 2·9, bill 0·49, tarsus 0·7.

Female. Crown leaden grey; sides of the head greenish grey; throat whitish grey; hind neck and the rest of the upper parts dark olive-green; upper wing-coverts like the back; rest of the wing as in the male; underparts dull green, brighter on the upper breast; sides of the vent whitish mingled with dark green; under tail-coverts buffy white, with the centre dark grey; tail as in the male.

Hab. Malay Peninsula from Wellesley Province, Sumatra, Borneo, and Java (?). I have not seen specimens from the latter locality.

a, *b*. ♂ ♀ ad. sk.	Kossoom, June (*J. Darling*).	Hume Coll.
c–*k*. ♂ ♀ ad. sk.	Selangore, March, April, July, Nov. (*W. Davison*).	Hume Coll.
l–*m'*. ♂ ♀ ad. et imm. sk.	Klang, March, May, June, Sept. (*W. Davison*).	Hume Coll.
n'. ♂ ad. sk.	Penang.	Salvin-Godman Coll.
o'–*r'*. ♂ ad. sk.	Malacca, Jan., July, Aug.	Hume Coll.
s', *t'*. ♀ ad. sk.	Chohong, Malacca, Oct. (*W. Davison*).	Hume Coll.
u', *v'*, *w'*. ♂ ♀ ad. sk.	Malacca, Aug. (*R.G. W.R.*).	Tweeddale Coll.
x', *y'*. ♂ ♀ ad. sk.	Malacca.	Salvin-Godman Coll.
z'. ♂ juv. sk.	Malacca (*Griffiths*).	India Museum [P.].
a''. ♂ ad. sk.	Malacca.	Gould Coll.
b'', *c''*. ♀ ad. sk.	Neealys near Malacca, Oct. (*W. Davison*).	Hume Coll.
d''–*z''*. ♂ ♀ ad. imm. et juv. sk.	Johore, March, July, Aug., Sept. (*W. Davison*).	Hume Coll.
a^3. ♀ ad. sk.	Singapore Is., Jan. (*W. Davison*).	Hume Coll.
b^3, c^3. ♂ ♀ ad. sk.	Sumatra.	Wallace Coll.
d^3. ♂ ad. sk.	Sumatra (*Wallace*).	Tweeddale Coll.
e^3. ♂ ad. sk.	Lampong, S.E. Sumatra (*E. C. Burton*).	Tweeddale Coll.
f^3. ♂ ad. sk.	Labuan (*Low*).	Sharpe Coll.
g^3. ♀ ad. sk.	Lawas.	H. Veitch, Esq. [P.].
h^3. ♂ ad. sk.	Sibruco River, N. Borneo.	A. McKinlay, Esq. [P.].

7. PHABOTRERON.

Type.

Phapitreron, *Bp. Consp. Av.* ii. p. 28 (1854)*; *id. Compt. Rend.* xxxix. p. 879 (1854) ..... P. leucotis.
Phapiscus, *Sund. Meth. Nat. Av. Disp. Tent.* p. 99 (1872) P. leucotis.
Phabotreron, *Wald. Tr. Zool. Soc.* ix. p. 214 (1875) (=Phapitreron).
Phabisca, *Salv.* (?) *Ibis, General Index*, pp. 300, 302 (1879).

Range. Philippine Islands.

Key to the Species.

a. Under tail-coverts buff or light cinnamon ..... *amethystina*, p. 66.
b. Under tail-coverts pale French-grey.
b'. Throat and cheeks deep ruddy fulvous.
a''. Throat of a deeper colour, almost cinnamon; occiput dull amethystine rufous ..... *leucotis*, p. 67.
b''. Throat rufous vinaceous; occiput bright coppery amethystine ..... *occipitalis*, p. 68.
b'. Throat and cheeks pale fulvous.
c''. Forehead greyish; occiput metallic green, seldom with an amethystine tinge; light streak under the eyes changing into fulvous on the ear-coverts ..... *nigrorum*, p. 68.
d''. Forehead pale fulvous, with a slight rufous tinge; occiput always with an amethystine tinge; light streak under the eyes white, also on the ear-coverts ..... *brevirostris*, p. 69.

1. Phabotreron amethystina.

Phapitreron amethystina, *Bp. Consp. Av.* ii. p. 28 (1854); *id. Compt. Rend.* xl. pp. 214, 217, n. 64 (1855); *id. Coup d'œil Ordre Pig.* pp. 52, 55, n. 64 (1855); *Rchnb. Tauben*, i. p. 91 (1862); *G. R. Gr. Hand-list*, ii. p. 246, n. 9433 (1870); *Wald. Tr. Zool. Soc.* ix. p. 251 (1875); *Elliot, P. Z. S.* 1878, p. 505; *Tweedd. Orn. Works*, pp. 378, 412, pl. xxxiv. f. 2 (1881).
Phaps amethystina, *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 62 (1856); *Gieb. Thes. Orn.* iii. p. 89 (1877).
Ptilonopus amethystina, *Wall. Ibis*, 1865, pp. 382, 397; *id. J. f. O.* 1866, p. 279.
Phaps (Phapitreron) amethystina, *Mart. J. f. O.* 1866, p. 24.
Chlorœnas amethystina, *Schleg. Mus. P.-B.* Columbæ, p. 80 (1873).
Phabotreron amethystina, *Wald. Tr. Zool. Soc.* ix. p. 214, pl. xxxiv. f. 2 (Luzon) (1875); *Sharpe, Tr. Linn. Soc., Zool.* i. p. 353 (1876); *Tweedd. P. Z. S.* 1877, p. 832 (N.E. Mindanao), 1878, p. 113 (Dinagat), p. 381 (Panaon); *id. Orn. Works*, pp. 378, 409, 558, 572, 604 (1881); *Wardl. Rams. ibid.* p. 659 (1881); *Steere, List Philipp. Birds*, p. 24 (Samar, Leyte) (1890).

Adult. Brown; hind neck of a beautiful amethystine colour;

* Quid *Dendrophaps*, Blyth (ubi?), genus *Treronidarum* alis brevissimis? (Bp. Consp. Av. ii. p. 28).

back, rump, and upper tail-coverts with bronze reflections; from the gape, passing below the eye, a black line, bordered underneath by a white line starting from the base of the lower mandible and reaching beyond the ear-coverts; throat reddish; breast and abdomen greyish brown, shining with amethystine; under tail-coverts buff or light cinnamon; tail brown with a dull purple tinge and with a broad apical grey band: "iris warm orange-brown; bill black; feet carmine; nails grey" (*Everett*). Total length 10·5 inches, wing 5·75, tail 3·6, bill 0·85, tarsus 0·85.

Hab. Philippine Islands—Luzon, Samar, Leyte, Dinagat, Panaon, Mindanao.

a. Ad. sk.	Philippine Islands.	Verreaux Coll.
b. ♂ ad. sk.	Luzon, April (*A. B. Meyer*).	Tweeddale Coll.
c. ♀ ad. sk.	Dinagat Is., June (*A. H. Everett*).	Tweeddale Coll.
d. ♀ ad. sk.	Panaon, Sept. (*A. H. Everett*).	Tweeddale Coll.
e, *f*. ♂ ad. sk.	Butuan, May (*A. H. Everett*).	Tweeddale Coll.

2. Phabotreron leucotis.

Columba leucotis, *Temm. Pl. Col.* 189 (Manilla) (livr. 32, 1823); *Desm. Dict. Sc. Nat.* xl. p. 338 (1826); *Wagl. Syst. Av.* Columba, sp. 60 (1827); *Less. Tr. d'Orn.* p. 471 (1831); *G. R. Gr. Gen. B.* ii. p. 470, n. 28 (1844); *Rchnb. Syn. Av.* Columbariæ, f. 1259 (1847); *Hartl. J. f. O.* 1854, B. lxv.

Goura? leucotis, *Steph. Gen. Zool.* xiv. p. 295 (1826).

Phaps leucotis, *G. R. Gr. Gen. B.* ii. p. 477, n. 5 (1845); *id. List B. Brit. Mus.* Columbæ, p. 61 (pt.) (1856); *Gieb. Thes. Orn.* iii. p. 90 (1877).

Peristera (Oreopeleja) leucotis, *Rchnb. Av. Syst. Nat.* p. xxv (1852).

Phapitreron leucotis, *Bp. Consp. Av.* ii. sp. 28 (1854); *id. Compt. Rend.* xxxix. p. 879 (1854), xl. p. 217, n. 65 (1855); *id. Coup d'œil Ordre Pig.* pp. 11, 55, n. 65 (1855); *Rchnb. Tauben*, i. p. 91, t. 224. f. 1259 (1862); *G. R. Gr. Hand-list*, ii. p. 246, n. 9432 (1870); *Wald. Tr. Zool. Soc.* ix. p. 251 (1875); *Tweedd. Orn. Works*, p. 412 (1881); *Hein. u. Rchnw. Nomencl. Mus. Hein. Orn.* p. 286 (1890); *Hartert, Kat. Vogelsamml.* p. 190 (1891); *id. J. f. O.* 1891, p. 301.

Ptilonopus leucotis, *Wall. Ibis*, 1865, pp. 382, 397; *id. J. f. O.* 1866, p. 279.

Phaps (Phapitreron) leucotis, *Mart. J. f. O.* 1866, p. 24.

Phapiscus leucotis, *Sund. Meth. Nat. Av. disp. Tent.* p. 99 (1872).

Chlorœnas leucotis, *Schleg. Mus. P.-B.* Columbæ, p. 79 (1873).

Phabotreron leucotis, *Wald. Tr. Zool. Soc.* ix. p. 214 (part., Luzon only) (1875); *Sharpe, Tr. Linn. Soc., Zool.* i. p. 353 (1876); *Tweedd. P. Z. S.* 1877, p. 699 (Luzon); *id. Orn. Works*, pp. 378, 525, 538, 559, 643 (1881); *Wardl. Rams. ibid.* p. 659 (1881); *Salv. Cat. B. Strickl. Coll.* p. 552 (1882); *Guillem. P. Z. S.* 1885, p. 270; *Tristr. Cat. Coll. B.* p. 41 (1889); *Steere, List Philipp. Birds*, p. 24 (Mindoro, Luzon) (1890).

Adult. Brown, with purple reflections on the back, rump, upper tail-coverts, and upper wing-coverts; forehead and crown greyish; occiput and sides of neck of a coppery colour; hind neck metallic

green; from the gape, passing below the eye, a black line, bordered underneath by a white line, starting from below the eye and reaching beyond the ear-coverts; anterior part of the cheeks, chin and throat deep ruddy fulvous; breast and abdomen pale ruddy fulvous or ochraceous; under tail-coverts pale French-grey; quills brown, with a narrow light edge on the outer web; tail above brown with an amethystine tinge, and with a broad grey band at the tip: "iris purple-grey, grey, or brown; bill black; feet bright carmine, or dull crimson" (*Everett*). Total length 9·5 inches, wing 5·25, tail 3·5, bill 0·63, tarsus 0·75.

Hab. Luzon and Mindoro.

a. Ad. sk.	South of Manilla (*Cuming*).	Zoological Society's Coll.
b. Ad. sk.	Philippine Islands.	Cuming Coll.
c, d. Ad. sk.	Philippine Islands.	E. Wilson, Esq. [P.].
e, f. ♂ ♀ ad. sk.	Luzon, Jan. (*A. B. Meyer*).	Tweeddale Coll.
g. Ad. sk.	Manilla (*Maitland Heriot*).	Tweeddale Coll.
h-l. ♂ ♀ ad. sk.	San Mateo, Feb. (*A. H. Everett*).	Tweeddale Coll.
m. ♀ ad. sk.	San Mateo, Feb. (*A. H. Everett*).	Salvin-Godman Coll.
n. ♂ ad. sk.	Monte Alban, Feb. (*A. H. Everett*)	Salvin-Godman Coll.

3. Phabotreron occipitalis.

Phabotreron brevirostris, *Tweedd. P. Z. S.* 1879, p. 73 (Basilan; *nec* 1877, p. 549); *id. Orn. Works*, p. 650 (Basilan); *Steere, List Philipp. Birds*, p. 24 (part., Basilan).

Adult male. Similar to *P. leucotis*, but the rufous throat more vinous, and the occiput of a coppery amethystine very conspicuous; the back and wings of a more greenish hue: "iris light warm brown; bill black; feet carmine" (*Everett*). Total length about 9 inches, wing 5, tail 3·6, bill 0·59, tarsus 0·8.

Female. Similar to the male.

Hab. Basilan.

a, b. ♂ ♀ ad. sk.	Basilan (*A. H. Everett*).	Tweeddale Coll. (Types of species).

4. Phabotreron nigrorum.

Phapitreron leucotis, *Wald. & Layard* (*nec Temm.*), *Ibis*, 1872, p. 104 (Negros); *Tweedd. Orn. Works*, p. 121 (1881).

Phabotreron nigrorum, *Sharpe, Tr. Linn. Soc., Zool.* i. pp. 346, 353 (1876) (Negros); *Tweedd. P. Z. S.* 1877, p. 764 (Guimaras, Cebu); *id. Orn. Works*, p. 538 (1881); *Wardl. Rams., Tweedd. Orn. Works*, p. 659 (1881); *Tristr. Cat. Coll. B.* p. 41 (1889); *Steere, List Philipp. Birds*, p. 24 (1890) (Guimaras, Panay, Negros, Cebu).

Similar to *P. leucotis*, but throat pale buff, and light subocular streak changing into rufous on the ear-coverts: "iris brown; bill

black; legs bright carmine" (*Everett*). Length 9·4 inches, wing 4·95, tail 3·9, bill 0·65, tarsus 0·85.

Hab. Negros, Cebu, Guimaras, and Panay.

a. ♂ ad. sk.	Guimaras, March (*A. B. Meyer*).	Tweeddale Coll.
b. ♀ ad. sk.	Negros, March (*L. Layard*).	Tweeddale Coll.
c, *d*. ♂ ♀ ad. sk.	Cebu, April (*A. H. Everett*).	Tweeddale Coll.

5. Phabotreron brevirostris.

Phaps leucotis, part., *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 61, specim. *c* (1856).

Phabotreron brevirostris, *Tweedd. P. Z. S.* 1877, pp. 549 (Pasananca), 832 (N.E. Mindanao), 1878, pp. 113 (Dinagat), 344 (Leyte), 952 (S.W. Mindanao); *id. Orn. Works*, pp. 461, 473, 558, 572, 599, 643, 650 (1881); *Wardlaw Rams. ibid.* pp. 659, 669 (1881); *Tweedd. Voy. 'Challenger,' Birds*, p. 22, pl. vi. (1881); *Kutter, J. f. O.* 1883, p. 314 (Sibulan, Mindanao); *Guillem. P. Z. S.* 1885, p. 269 (Sulu); *Tristr. Cat. Coll. B.* p. 41 (1889) (Placer); *Steere, List Philipp. Birds*, p. 24 (part.) (Mindanao, Samar, Leyte, Bojol) (1890).

Similar to *P. leucotis*, from which it differs in having the forehead and throat greyish fulvous, the occiput constantly amethystine, and the rectrices with a decided amethystine tinge; it resembles also *P. nigrorum*, especially as regards the colouring of the forehead and throat, but it differs in having the subocular streak white and the occiput more amethystine. Total length about 9·5 inches, wing 4·9, tail 3·9, bill 0·53, tarsus 0·75.

I have seen in the Rothschild Collection the specimen from the Sulu Islands collected by Dr. Guillemard. Strange to say, it cannot be separated from true *P. brevirostris*, the only differences being that the hind part of the cheeks is more amethystine in the Sulu bird, the rufescent tinge on the forehead is more restricted, and the dimensions are somewhat smaller, wing 4·6.

Hab. S. Philippine Islands—Mindanao, Dinagat, Bohol, Leyte, Samar, and also Sulu Islands.

a. ♀ ad. sk.	Dinagat Is., June (*A. H. Everett*).	Tweeddale Coll.
b. ♂ ad. sk.	Surigao, May (*A. H. Everett*).	Tweeddale Coll.
c, *d*. ♂ ♀ ad. sk.	Butuan, May (*A. H. Everett*).	Tweeddale Coll.
e. ♂ ad. sk.	Zamboanga, March (*A. H. Everett*).	Tweeddale Coll.
f. Ad. sk.	Zamboanga, April (*A. H. Everett*).	Salvin-Godman Coll.
g. ♂ ad. sk.	Pasananca, Zamboanga.	'Challenger' Exp. (Type of the species.)
h. Ad. sk.	No locality.	Sir E. Belcher [P.].

Subfamily II. PTILOPODINÆ.

Key to the Genera.

a. Primaries normal, not divided at the tip.
  a'. Under wing-coverts not yellow, if yellow the tail short.
    a''. Plumage generally green, in no case almost entirely deep blue.
      a'''. Inner webs or quills neither yellow nor orange-yellow .... 8. PTILOPUS, p. 70.
      b'''. Inner webs of quills yellow or orange-yellow ..... 9. CHRYSŒNAS, p. 155.
    b''. Plumage mostly deep blue; feathers of the neck very deeply bifurcated ..... 11. ALECTROENAS, p. 160.
  b'. Under wing-coverts yellow; tail rather long and rounded; first primary not attenuated at the tip .... 12. MEGALOPREPIA, p. 166.
b. Primaries divided at the tip; tarsi entirely feathered ..... 10. DREPANOPTILA, p. 158.

8. PTILOPUS.

Cf. D. G. Elliot, "On the Fruit-Pigeons of the Genus *Ptilopus*" (P. Z. S. 1878, pp. 500–576); Wiglesworth, "On the Polynesian Members of the Genus *Ptilopus*" (Ibis, 1891, pp. 566–584).

Range. From the Malay Peninsula, through the Malay Archipelago, to Australia and Polynesia.

Key to the Subgenera.

a. First primary abruptly attenuated on the apical portion; if not attenuated, head, neck, and breast uniform rose-carmine.
  a'. Tail rather long; no defined cap on the upper part of the head..... *a.* LEUCOTRERON, p. 71.
  b'. Tail moderate; pectoral feathers bifurcated; a defined cap on the upper part of the head.
    b''. Wing rather long; no broad blue-black band on the lower parts .. *β.* PTILOPUS, p. 83.
    c''. Wing rather short; a very broad blue-black band separates the breast from the abdomen ..... *γ.* LAMPROTRERON, p. 112.
  c'. Tail rather short.
    d''. Bill weak.
      a'''. Cap red or violet-purple.
        *a*¹. Feathers of the breast normal, not bifurcated ..... *δ.* EUTRERON, p. 116.
        *b*¹. Feathers of the breast bifurcated ..... *ε.* PTILOPODISCUS, p. 118.
      b'''. Cap blue ..... *ζ.* CYANOTRERON, p. 121.

e''. Bill rather strong; general plumage green, with a broad abdominal patch orange-yellow.
e'''. No knob at the base of the upper mandible ..... η. CHLOROTRERON, p. 122.
f''. A very prominent knob at the base of the upper mandible.... θ. (EDIRHINUS, p. 125.
b. First primary not abruptly attenuated on the apical portion; head, neck, and breast never uniform rose-carmine.
d'. Tail rather short and rounded; hind neck grey, mantle or scapulars red- or grey-spotted..... ι. SYLPHITRERON, p. 126.
e'. Tail rather long and rounded.
f'. Rectrices 16: males with a white or yellow pectoral band, anterior part of the pileum red, scapulars with dark blue spots; females almost uniform green ..... κ. THORACOTRERON, p. 134.
g''. Rectrices 14: males with the head grey, a black occipital spot, throat yellow, shorter under tail-coverts yellow and the longer ones red; females green, with the longer under tail-coverts dull red ..... λ. SPILOTRERON, p. 141.
f'. Tail short, scarcely rounded; head more or less grey, or milky white, or entirely green; a purple-red patch on the crop-region or on the abdomen ..... μ. IONOTRERON, p. 146.

a. LEUCOTRERON.

	Type.
Leucotreron, *Bp. Consp. Av.* ii. p. 15 (1854); *id. Compt. Rend.* xxxix. p. 876 (1854)	P. cinctus.
Ramphiculus, *Bp. Consp. Av.* ii. p. 17 (1854); *id. Compt. Rend.* xxxix. p. 878 (1854)	P. occipitalis.
Omeotreron, *Bp. Consp. Av.* ii. p. 27 (1854); *id. Compt. Rend.* xxxix. p. 878 (1854)	P. occipitalis, [juv.
Jambotreron, *Bp.* 1854, *fide G. R. Gr. Cat. Gen. & Subgen. B.* p. 97, n. 1643 (1855)	P. jambu.
Trerolæma, *Bp. Compt. Rend.* xli. p. 247 (1855), xliii. p. 833 (1856)	P. gularis.
Rhamphiculus, *Rchnb. Tauben*, p. 98 (1862)	P. jambu.
Laryngogramma, *Rchnb. Tauben*, p. 102 (1862)	P. gularis.
Xenotreron, *Tweedd. P. Z. S.* 1877, p. 832	P. occipitalis,
Phassa, *Heine, Nomencl. Mus. Hein. Orn.* p. 281 (1882–1890) (= Rhamphiculus, *Bp.*).	[juv.

Range. Indo-Malay and Western Austro-Malay Archipelago.

Key to the Species.

a. Under tail-coverts whitish or yellowish white, with the inner webs more or less greyish or greenish.
a'. Head partly red (*Rhamphiculus*).

a''. Upper part of the head grey.
a'''. Occipital band dark crimson, like the sides of the head; crop-region ochreous, bounded below by a broad crimson band or patch ..... *occipitalis*, p. 72.
b'''. Occipital band slaty black; sides of the head dark crimson; crop-region grey; underparts with no red.
a⁴. Back and wings metallic green, abdomen ochre-yellowish ..... *fischeri*, p. 74.
b⁴. Back and wings slaty grey, underparts grey with no ochre-yellowish tinge .. *meridionalis*, p. 74.
b''. Upper part of the head ochreous red; a red patch on the secondaries..... *marchei*, p. 75.
b'. Head and neck entirely pink-red; first primary not attenuated at the tip ..... *roseicollis*, p. 75.
c'. Head and neck white or grey, with no red (*Leucotreron*).
c''. Head and neck grey ..... *albocinctus*, p. 77.
d''. Head and neck white with a yellow tinge.
c'''. Apical band of the tail grey ..... *cinctus*, p. 77.
d'''. Apical band of the tail yellowish white.. *lettiensis*, p. 78.
b. Under tail-coverts uniform maroon or cinnamon colour; gular stripe black or dark maroon (*Treroläema*).
d'. No red colour on the head.
e''. Larger, wing 6·8 inches; an ochreous-buff band across the lower breast ..... *gularis*, p. 78.
f''. Smaller, wing 5·6 inches; a broad dark maroon band across the breast ..... *leclancheri*, p. 79.
e'. Anterior part of the head bright pink-red; underparts white with a pink-rosy patch on the crop-region of the male ..... *jambu*, p. 80.

1. Ptilopus occipitalis.

Ptilonopus occipitalis, *G. R. Gr. List B. Brit. Mus.* Gallinæ, p. 1 (1844) (Philippines, descr. nullâ); *Gr. & Mitch. Gen. B.* ii. p. 467, n. 25, pl. 118 (1844); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 7, specim. *a*, *b* (1856); *Wallace, Ibis*, 1865, p. 378; *id. J. f. O.* 1866, p. 278; *Garrod, P. Z. S.* 1874, p. 250 *.

Ramphiculus occipitalis, *Bp. Consp. Av.* ii. p. 17 (1854); *id. Compt. Rend.* xxxix. p. 878 (1854), xl. p. 216, n. 34; *id. Coup d'œil Ordr. Pig.* pp. 10, 54, n. 34 (1855); *id. Icon. Pig.* pl. 14 (1857); *G. R. Gr. Hand-list*, ii. p. 227, n. 9149 (1870); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 7 (1873); *Wald. Tr. Zool. Soc.* ix. pp. 214, 251 (1875); *Sharpe, Tr. Linn. Soc.* (2) i. p. 353, n. 202 (1876); *Tweedd. P. Z. S.* 1877, p. 764 (Cebu), p. 832 (Butuan), 1878, p. 952 (Zamboanga), 1879, p. 73 (Basilan); *id. Orn. Works*, pp. 378, 412, 538, 558, 643, 653 (1881); *Wardl. Rams., Tweedd. Orn. Works*, p. 659 (1881).

Omeotreron batilda, *Bp. Consp. Av.* ii. p. 27 (1854) (juv.); *id. Compt. Rend.* xxxix. p. 878 (1854), xl. p. 217, n. 61; *id. Coup d'œil Ordr. Pig.* pp. 10, 55, n. 61 (1855).

Columba occipitalis, *Schleg. Handleid.* i. p. 411 (1857).

Lamprotreron porphyrea, *Bp.* (*nec Temm.*) *Icon. Pig.* pl. xv. (juv.).

* Garrod mentions 16 tail-feathers in the present species, while I have found only 14.

Ionotreron occipitalis, *Rchnb. Tauben*, p. 101, t. 239. f. 1331 (1862).
Ptilonopus batilda, *Wall. Ibis*, 1865, p. 382; *id. J.f. O.* 1866, p. 279.
Ptilopus (Rhamphiculus) occipitalis, *Mart. J.f. O.* 1866, p. 23, n. 124.
Ptilopus (Omeotreron) batilda, *v. Mart. J.f. O.* 1866, p. 23, n. 125.
Ptilopus occipitalis, *Schleg. Mus. P.-B.* Columbæ, p. 35 (1873); *Gieb. Thes. Orn.* iii. p. 366 (1877); *Elliot, P. Z. S.* 1878, p. 569; *Tristr. Cat. Coll. B.* p. 44 (1889); *Steere, List Philipp. Birds*, p. 24 (1890) (Leyte).
Ptilopus? incognita, *Tweedd. Ann. & Mag. N. H.* (4) x. p. 538 (1877); *id. Orn. Works*, p. 565 (1881); *Wardl. Rams., Tweedd. Orn. Works*, pp. 654, 659, 669 (1881).
Leucotreron? incognita, *Tweedd. P. Z. S.* 1877, p. 816.
Xenotreron incognita, *Tweedd. P. Z. S.* 1877, p. 832.

Adult male. Pileum and anterior part of face grey; sides of head below the eyes and entire back of head purple-red; back of neck and upper parts bronzy green; throat white tinged with yellowish; sides of neck and of breast grey; crop ochraceous; a broad purple band on the lower part of breast; middle of abdomen grey; sides and flanks greyish green; vent and under tail-coverts whitish, the latter with a broad green stripe on the inner webs; thighs greenish grey anteriorly, white posteriorly; wings green, the primaries black on the inner web, quills with narrow yellowish edges outwardly; first primary abruptly attenuated; wing underneath lead-grey, under wing-coverts greenish grey; tail green above with a greyish band at the tip, grey below with a lighter band at the tip: "iris pale reddish brown; basal half of bill vermilion, apical half yellow; feet carmine, nails grey tinged with yellow" (*Everett*). Total length 11·75 inches, wing 6·25, tail 4·25, bill 0·6, tarsus 0·75.

Female adult. Like the male: "iris light yellow or hazel-brown" (*Everett*).

Young (type of *O. batilda*). "Top of head, back of neck, and entire upper parts bronzy green; throat yellowish white; sides of head yellowish white, interspersed with green; underparts greyish green, bronze upon the breast; crissum and under tail-coverts whitish, the latter striped with green; wings like the back, the secondaries and primaries edged on outer web with yellowish white; tail bright green, with a greyish-white apical band, which is observed only on the inner webs. Total length 11 inches, wing 6, tail 4, culmen $\frac{5}{8}$" (*Elliot*). "Iris dark brown; bill light brown, the basal half dull red; feet coral-red" (*Everett*).

Immature female (type of *Ptilopus incognita*). "Above, tertiaries, and wing-coverts light emerald-green; forehead, lores, ophthalmic region, cheeks, and ear-coverts grey mixed with dingy green; chin and throat almost pure white; neck and sides of neck greenish grey; an ill-defined pectoral band formed of green feathers tipped with reddy orange; breast ashy green tinged with the same colour; flanks green; abdomen mixed green and ashy; under tail-coverts (which are lengthened) pale creamy white, with a brown central streak; thigh- and tarsal-coverts ashy brown; exposed upper surface of rectrices tinged with golden; lower surface pale ashy brown, with ill-defined paler tips; quills dark brown, margined outwardly

with dark green; secondaries with a pale narrow creamy border, still narrower on the major coverts: 'iris dark hazel; bill dull greenish orange; feet pale reddish' (*Everett*). Wing 5·25 inches, culmen 0·75, tarsus 0·81, tail 3·75." (*Tweeddale.*)

Hab. Philippines—Luzon, Zebu, Leyte, Mindanao, and Basilan.

a, b. Ad. sk.	Philippine Is.	Cuming Coll. (Types of species.)
c. Ad. sk.	Manilla.	Gould Coll.
d, e, f. ♂ ♀ ad. sk.	Luzon, Jan. (*A. B. Meyer*).	Tweeddale Coll.
g, h, i. ♂ ♀ ad. sk.	Cebu, April (*A. H. Everett*).	Tweeddale Coll.
k, l. ♂ ♀ ad. sk.	Cebu, April (*A. H. Everett*).	Salvin-Godman Coll.
m. ♂ ad. sk.	Butuan, May (*A. H. E.*).	Tweeddale Coll.
n. ♀ juv. sk.	Butuan, May (*A. H. E.*). (Type of *Ptilopus incognita*, Tweedd.)	Tweeddale Coll.
o–r. ♂ ad. et ♂ ♀ imm. sk.	Zamboanga, March, April (*A. H. E.*).	Tweeddale Coll.
s. ♂ ad. sk.	Basilan, June (*A. H. E.*).	Tweeddale Coll.

2. Ptilopus fischeri.

Ptilinopus fischeri, *Brügg. Abh. naturw. Ver. Brem.* v. p. 82, t. iv. (1876) (Celebes).

Ptilopus fischeri, *Elliot, P. Z. S.* 1878, p. 571; *Meyer, Ibis*, 1879, p. 135 (part., N. Celebes); *Meyer, Ibis*, 1881, p. 170 (part., N. Celebes).

Adult male. Above metallic green; upper part of the head pale grey; round the hind neck a band of slaty black, joining the dark crimson patches on each side of the head, which cover the ear-coverts and the feathers below and in front of the eyes; throat white, slightly tinged with yellowish; neck and upper breast grey; mantle grey, slightly tinged with green in the middle; lower breast and abdomen washed with olive-yellowish; under tail-coverts whitish buff, with the greater part of the inner webs greyish olive: wings metallic green; outer web of the secondaries edged with yellow; primaries black, slightly tinged with metallic green and very narrowly edged with yellow on the outer webs; wings underneath slate-grey; tail above metallic green, below grey, with a broad apical grey band: "iris brown; bill greenish, with the tip yellow; feet cherry-red" (*Platen*). Total length about 14 inches, wing 6·3, tail 5·5, bill 0·64, tarsus 0·95 (*Mus. Brunswick*).

Female. Similar to the male (*Mus. Brunswick*).

Young. The grey of the head and of the neck tinged with green, no black band on the nape; the crimson patch on the sides of the head scarcely apparent; edges of the secondaries pale yellowish (*Mus. Brunswick*).

Hab. Minahassa, N. Celebes.

3. Ptilopus meridionalis.

Ptilopus fisheri, *Meyer, Ibis*, 1879, p. 135 (part., S. Celebes); *Gould (nec Brügg.), B. of New Guin.* pt. xi. pl. 4 (1880); *Meyer, Ibis*, 1881, p. 120 (part., S. Celebes).

Leucotreron fischeri meridionalis, *Meyer & Wiglesw. Orn. Monatsb.* i. p. 12 (1893).

Ptilopus P. fischeri (Brügg.) "affinis, sed dorso alisque schistaceis, corpore subtus toto vinaceo luteo-grisco, distinguendus. Long. tot. mm. 340, al. 172–175, caud. 145, tarsi 28, rostri 15·5." (*M. & W.*)

"The principal differences between this new subspecies and [*P.*] *fischeri* are the following: *meridionalis* has the head and nape-band darker; also the red on the head is somewhat darker; whole of the upper surface slate-grey, instead of green, as in *fischeri*; under wing-coverts without green lustre; throat without yellow tinge; breast much paler; abdomen without the greenish ochre-yellow; the whole under surface only of one colour, and not of two colours; bill somewhat shorter." (*M. & W.*)

Hab. Makassar, S. Celebes.

4. Ptilopus marchei.

Ptilopus (Rhamphiculus) marchei, *Oust. Le Naturaliste*, 1880, p. 324; *Rchnw. & Schal. J. f. O.* 1881, p. 26; *Oust. Nouv. Arch. du Mus. d'Hist. Nat.* (2) viii. p. 305, pl. xiii. (1884).

Female (?). Upper part of the head and chin ochreous red, changing into vermilion; ear-coverts blackish; under surface light grey, with the flanks washed with green, and with a broad patch on the chest vermilion-red, changing into carmine below; round the nape a grey collar; primaries black, with a narrow edge white or yellowish; secondaries blackish green, with the outer web very broad, carmine-red; tail above blackish green, with a broad greyish-green band at the end; tail below blackish grey, with a pale grey tip; tail-feathers with very narrow golden-yellow edges; under tail-coverts green, broadly edged with buff: bill red with the tip light; feet red. Total length (360 mm.) 14·25 inches, wing 7·12, tail 5·5, bill 0·55, tarsus 0·98. (*Oustalet.*)

I have seen the only specimen known, which is in the Museum of Paris. This species is allied to *P. occipitalis*, but is very peculiar n having a patch of red on the secondaries formed by separate barbs.

Hab. Luzon, Philippines.

5. Ptilopus roseicollis.

Columba porphyrea, *Reinw. in Temm. Pl. Col.* 106 (1824) (*nec* C. porphyracea, *Forst.*); *Desm. Dict. Sc. Nat.* xl. p. 336 (1826); *Less. Tr. d'Orn.* p. 472 (1831); *Knip & Prév. Pig.* ii. pl. 4 (1838–1843).

Ptilinopus porphyreus, *Sw. Zool. Journ.* i. p. 473 (1825); *Steph. Gen. Zool.* xiv. p. 277, pl. 33 (1826); *Less. Compl. de Buff.* viii. p. 37 (1837), 2nd ed. p. 279 (1838).

Columba roseicollis, *Wagl. Syst. Av.* Columba, n. 27 (1827); *id. Isis*, 1829, p. 741.

Ptilinopus erythrocephalus, *Sw. Class. B.* ii. p. 347 (1836).

Ptilinopus porphyreus, *Hartl. Syst. Verz. Brem.* p. 97 (1844).

Ptilonopus roseicollis, *G. R. Gr. Gen. B.* ii. p. 467, n. 21 (1844); *id. List Gallinæ B. M.* p. 1 (1844); *id. List Spec. B. Brit. Mus.* Columbæ, p. 8 (1856); *Pelz. & Lor. Ann. Naturh. Hofmus.* p. 47.

Kurukuru roseicollis, *Des Murs & Prév. Voy. Vénus*, p. 269 (1855 ?).
Lamprotreron porphyrea, *Bp. Consp. Av.* ii. p. 18 (1854); *id. Compt. Rend.* xxxix. p. 876 (1854), xl. p. 216, n. 37; *id. Coup d'œil Ordr. Pig.* pp. 8, 54, n. 37 (1855); *Rchnb. Tauben*, p. 97, t. 237, ff. 1322-23 (1862); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 7 (1873).
Ptilopus porphyreus, *Schleg. De Dierent.* p. 210 (1864); *id. Mus. P.-B.* Columbæ, p. 33 (1873); *Gieb. Thes. Orn.* iii. p. 367 (1877); *Elliot, P. Z. S.* 1878, p. 553; *Salvad. P. Z. S.* 1879, p. 64; *Nichols. Ibis*, 1881, p. 154; *Vorderm. N. T. N. I.* xlv. p. 395 (1885).
Ptilonopus porphyreus, *Wall. Ibis*, 1865, p. 380; *id. J. f. O.* 1866, p. 279.
Lamprotreron roseicollis, *G. R. Gr. Hand-list*, ii. p. 227, n. 9160 (1870).
Ptilopus roseicollis, *Salvad. Ann. Mus. Civ. Gen.* xiii. p. 454 (note) (Sumatra) (1878) *id. P. Z. S.* 1879, p. 64; *id. Ann. Mus. Civ. Gen.* xiv. p. 245 (Sumatra) (1879); *Vorderm. N. T. N. I.* xlix. p. 412 (1889), li. p. 400 (1892).
Lamprotreron porphyreus, *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 281 (1890).

Adult male. Head, neck, and breast carmine, paler on the head; the carmine colour margined all round with a whitish band, narrow on the back and broad on the breast; below the white band on the breast there is a second one blackish green; lower part of the breast grey; sides, flanks, and thighs olive; abdomen and vent yellow mixed with olive; under tail-coverts pale yellow, with the inner web and part of the outer web of the longest dark olive; upper back, scapulars, and wing-coverts shining olive-green; lower back and upper tail-coverts olive-green; primaries and their coverts deep shining green; secondaries with narrow yellow edges; inner secondaries like the back; under surface of the wing plumbeous; under wing-coverts with a slight greenish tinge: tail above dull green, with the inner webs of the lateral feathers black, and with an apical band grey tinged with olive-green; tail underneath blackish, with a grey band at the tip, but edged with white on the inner web of the feathers: "bill yellowish olive or greenish; feet coral-red or rose-coral; irides crimson or red" (*Wallace, Beccari*). Total length about 11 inches, wing 5·5, tail 4, bill 0·62, tarsus 0·76.

Female. Differs from the male in having the rose-colour of the neck more or less tinged with olive, especially on the lower part, the white band on the breast less pure, the blackish-green pectoral band less deep, and the grey colour of the lower breast nearly wanting.

Young. General plumage green, with the feathers edged with yellow.

Hab. Java and Sumatra.

a, b, c. Ad. et juv. sk.	W. Java.	Wallace Coll.
d, e. Ad. sk. et ♀ ad. ?	W. Java (*Wallace*).	Gould Coll.
f. ♀ ad. ? sk.	Java.	Salvin-Godman Coll.
g. Juv. sk.	Java.	Gould Coll.
h. ♀ ? ad. st.	Sumatra.	Baron Laugier Coll.
i. ♀ ? ad. sk.	Indian Archipelago.	W. Elliot, Esq. [P.].

k, l. ♂ ♀ ? ad. st.	[Timor.]	Leyden Museum [P.].
m, n, o. Skeletons.	Java.	Purchased.

6. Ptilopus albocinctus.

Ptilinopus albocinctus, *Wall. P. Z. S.* 1863, p. 496, pl. xxxix. (Flores); *id. Ibis*, 1865, p. 377.
Ptilopus cinctus florensis, *Schleg. N. T. D.* iv. p. 20 (1873); *id. Mus. P.-B.* Columbæ, p. 34 (note) (1873).
Ptilopus albocinctus, *Gieb. Thes. Orn.* iii. p. 362 (1877); *Elliot, P. Z. S.* 1878, p. 371; *Meyer, Verh. z.-b. Ges. Wien*, 1881, p. 771.
Leucotreron albocinctus, *G. R. Gr. Hand-list*, ii. p. 227, n. 9162.

Adult. Slaty black, crown and forehead ashy white; throat and cheeks white; neck and breast ashy, with a narrow edging above and a broad band beneath white; below this a broad blue-black band on the lower breast; belly and thighs olive-yellow; legs ashy; under tail-coverts ashy, with broad margins to the feathers bright yellow; tail with a terminal ash-coloured band, which on the underside is nearly white: bill greenish at base, yellow at tip; feet bright red. Total length 12·5 inches, wing 6 (the first quill moderately attenuated at the tip), tail 4·75, bill 0·62, tarsus 0·9.

This species differs from *P. cinctus* principally in having the neck and breast ashy, and, if the character is constant, in the first primary less attenuated.

Hab. Flores.

a. Ad. sk.	Flores.	Wallace Coll. (Type of species.)

7. Ptilopus cinctus.

Columba cincta, *Knip & Temm. Pig.* i. p. 58, pl. 23 (1808–11); *Temm. Pig. et Gall.* i. pp. 245, 466 (1813); *Vieill. N. D.* xxvi. p. 347 (1818); *Steph. Gen. Zool.* xi. 1, p. 50 (1819); *Vieill. Enc. Méth.* i. p. 380 (1823); *Steph. Gen. Zool.* xiv. 1, p. 280 (1826); *Desm. Dict. Sc. Nat.* xl. p. 331 (1826); *Wagl. Syst. Av.* Columba, n. 19 (1827).
Ptilonopus cinctus, *G. R. Gr. Gen. B.* ii. p. 467, n. 18 (1844); *id. List B. Brit. Mus.* Gallinæ, p. 2 (1844); *id. List B. Brit. Mus.* Columbæ, p. 8 (1856); *Wall. P. Z. S.* 1863, p. 486 (Timor); *id. Ibis*, 1865, p. 377; *Pelz. u. Lor. Ann. Naturh. Hofmus.* iii. p. 47.
Leucotreron cincta, *Bp. Consp. Av.* ii. p. 15 (1854); *id. Compt. Rend.* xxxix. p. 876 (1854), xl. p. 216, n. 30; *id. Coup d'œil Ordr. Pig.* pp. 8, 54, n. 31 (1855); *Rchnb. Tauben*, p. 103, t. 238. ff. 1328-29 (1862) (Timor); *G. R. Gr. Hand-list*, ii. p. 227, n. 9161 (1870); *Hartert, Kat. Vogelsamml.* p. 190 (1891).
Ptilopus cinctus, *Schleg. De Dierent.* p. 210 (1864); *id. N. T. D.* iv. p. 19 (1873); *id. Mus. P.-B.* Columbæ, p. 34 (1873) (Timor, Wetter); *Gieb. Thes. Orn.* p. 363 (1877); *Elliot, P. Z. S.* 1878, p. 571; *Meyer, Verh. z.-b. Ges. Wien*, 1881, p. 771.
Leucotreron cinctus, *Heine & Rchnw. Nomencl. Mus. Hein. Orn.* p. 281 (1890).

Adult male. Head, neck, throat, and entire breast white, with a slight yellow tinge, especially on the neck and breast; rest of

underparts yellowish olive, separated from the white breast by a broad black band; entire upper parts, wings, and tail slate-black; the latter with an apical dark grey band; longer under tail-coverts dark grey, the remainder grey on the inner webs, yellowish white on the outer ones, all broadly margined with yellow: "bill ochre-yellow, greenish at base; feet red; iris red" (*Wallace*). Total length 12·25 inches, wing 6·50, tail 5·5, culmen 0·6, tarsus 0·9.

Female. Like the male, but somewhat smaller.

Young. Differs from the adult in having the colours less pure, and the feathers of the upper parts (back and wings) tinged with green towards the edges, which are yellow.

Hab. Timor and Wetter.

a. Ad. st.	Indian Archipelago.	Purchased.
b–g. ♂ ♀ ad. et imm. sk.	E. Timor (*Wallace*).	
h, i. ♂ ♀ ad. sk.	Timor, Jan., April (*H. O. Forbes*).	Salvin-Godman Coll.
k. Skeleton.	Timor.	Eyton Coll.

8. Ptilopus lettiensis.

Ptilopus cinctus lettiensis, *Schleg. N. T. D.* iv. p. 20 (1873); *id. Mus. P.-B.* Columbæ, p. 35 (1873).

Ptilopus lettiensis, *Elliot, P. Z. S.* 1878, p. 572; *Meyer, Verh. z.-b. Ges. Wien*, 1881, p. 770 (Luang); *id. Zeitschr. f. ges. Orn.* 1884, p. 213 (Timor Laut); *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 54 (*Agg. Orn. Pap. e Mol.* p. 180) (1891).

Adult. "Head, mantle, throat, neck, and breast ivory-white; beneath the white of the breast is a broad blue-black band; lower part of the abdomen and crissum greenish yellow; under tail-coverts brownish in the centre, rest white, margined with yellow; back and wings black; first primary gradually attenuated to the tip, which is pointed; rump greenish grey; tail greyish black for two thirds of its basal part, rest yellowish white: bill green, tip ochre; feet dark red. Total length 11·75 inches, wing 6·25, tail 4·6, culmen 0·6." (*Elliot.*)

Hab. Islands of Lettie and Luang to the east of Timor, and Timor Laut.

9. Ptilopus gularis.

Columba gularis, *Quoy & Gaim.* (*nec Wagl.*) *Voy. Astrol., Zool.* i. p. 247, pl. 29 (Menado) (1830); *Knip & Prév. Pig.* pl. xi. (1838–41).

Ptilinopus gularis, *Less. Compl. de Buff.* viii. *Ois.* p. 39 (1837), 2nd ed. p. 279 (1838); *Brügg. Abh. naturw. Ver. Brem.* v. p. 82 (1876).

Carpophaga gularis, *G. R. Gr. Gen. B.* ii. p. 469, n. 25 (1844).

Leucotreron gularis, *Bp. Consp. Av.* ii. p. 15 (1854); *id. Compt. Rend.* xxxix. p. 876 (1854), xl. p. 216, n. 31; *id. Coup d'œil Ordre Pig.* pp. 8, 54, n. 31 (1855); *Wald. Tr. Zool. Soc.* viii. p. 83 (1872) *Sousa, Mus. Nac. Lisb.* Columbæ, p. 7 (1873); *Salvad. Ann. Mus.*

Civ. Gen. ix. p. 670 (1875); *Meyer, Ibis*, 1879, p. 135; *Blas. J.f. O.* 1883, p. 138; *id. Zeitschr. f. ges. Orn.* iii. p. 131 (1886).

Treroläma gularis, *Bp. Compt. Rend.* xli. p. 24 (1855); *G. R. Gr. Hand-list*, ii. p. 230, n. 9203 (1870); *Schneid. Cat.* p. 22 (1878).

Laryngogramma gularis, *Rchnh. Tauben*, p. 102, t. 233. f. 1297, ii. p. 203, t. iv. f. 44 (1862); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 282 (1890).

Ptilopus gularis, *Schleg. De Dierent.* p. 210 (1864); *id. Mus. P.-B.* Columbæ, p. 37 (1873); *Gieb. Thes. Orn.* iii. p. 364 (1877); *Elliot, P. Z. S.* 1878, p. 570.

Ptilonopus gularis, *Wall. Ibis*, 1865, p. 377; *id. Journ. f. Orn.* 1866, p. 278.

Adult male. Anterior part of the head grey, changing into green on the occiput and hind neck; upper parts green, deeper and with a blue tinge on the primaries; chin and centre of the throat deep chestnut; neck in front and on the sides and breast dull grey; sides green; an ochreous-buff patch on the middle of the lower breast; lower abdomen, vent, under tail-coverts, and flanks cinnamon; quills with narrow yellowish edges; under wing-coverts green; quills underneath lead-grey; tail above green, with the tip paler, below dark grey, with light grey tip: "bill yellow; iris orange-brown; eyelids and orbits bare blue; feet red" (*Wallace*). Total length about 13·5 inches, wing 6·8, tail 5·8, bill 0·7, tarsus 0·8.

Hab. Northern Celebes.

a. Ad. sk.	Celebes.	Tweeddale Coll.
b, c. Ad. st.	Celebes.	Wallace Coll.
d–f. Ad. sk.	Menado, N. Celebes.	Wallace Coll.
g. Ad. sk.	Menado.	Hume Coll.

10. Ptilopus leclancheri.

Treroläma leclancheri, *Bp. Compt. Rend.* xli. p. 247 (1855) (Nouvelle Guinée!), xliii. p. 833 (1856); *id. Icon. Pig.* pl. 16 (1857); *G. R. Gr. Ibis*, 1862, p. 343; *id. Hand-list*, ii. p. 230, n. 9201.

Ptilonopus occipitalis, part., *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 7, specim. *c* (1856).

Carpophaga leclancheri, *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 21 (1856) (New Guinea, *Verreaux*); *id. P. Z. S.* 1858, p. 196, 1861, p. 437; *Rosenb. N. T. N. I.* xxv. p. 249, n. 225 (1863); *id. J.f. O.* 1864, p. 132, n. 225.

Ptilonopus leclancheri, *Sclat. Journ. Pr. Linn. Soc.* ii. p. 167, n. 132 (1858); *Wall. Ibis*, 1865, p. 377, n. 18; *Finsch, Neu-Guin.* p. 176 (1865); *Wall. J.f. O.* 1866, p. 278, n. 18.

Carpophaga leclaucheri (*errore*), *G. R. Gr. Cat. B. New Guin.* pp. 48, 61 (1859).

Leucotreron gironieri, *Verr. & Des Murs, Ibis*, 1862, p. 342, pl. xii. (Palawan, Philippines); *G. R. Gr. Ibis*, 1862, p. 344; *Schleg. Ibis*, 1863, p. 120; *Wald. Tr. Zool. Soc.* ix. pp. 213, 251, sp. 137, pl. xxxiv. f. 1 (1875) (Luzon, Guimaras) (ad.); *Sharpe, Tr. Linn. Soc.* (2) i. p. 353, n. 201 (1876); *Tweedd. P. Z. S.* 1878, p. 287 (Valencia); *id. Orn. Works*, pp. 377, 412, 593 (1881).

Ptilopus geversi (*errore*), *Schleg. Ibis*, 1863, p. 120.

Ptilopus hugoniana, *Schleg. N. T. D.* i. p. 60 (1863) (juv., Luzon).

Ptilopus hugonianus, *Schleg. op. cit.* pl. 3. f. 2 (juv.) (1863); *Wall. Ibis*, 1865, p. 378, n. 20; *Schleg. Mus. P.-B.* Columbæ, p. 36 (1873); *Gieb. Thes. Orn.* iii. p. 364 (1877).
Treroläema gironieri, *G. R. Gr. Hand-list*, ii. p. 230, n. 9202 (1870).
Ptilopus leclancheri, *Salvad. Ann. Mus. Civ. Gen.* ix. p. 199, n. 32 (1876); *Gieb. Thes. Orn.* iii. p. 365 (1877); *Elliot, P. Z. S.* 1878, p. 568; *Wardl. Rams., Tweedd. Orn. Works*, pp. 654, 659 (1881) (Luzon, Negros, Guimaras); *Everett, P. Z. S.* 1889, p. 225 (Palawan); *Steere, List of Philipp. Birds*, p. 24 (1890).
Ptilopus giranieri (*errore*), *Gieb. Thes. Orn.* iii. p. 364 (1877).
Leucotreron leclancheri, *Salvad. Atti R. Ac. Sc. Tor.* xiii. p. 427 (1878); *Blas. Ornis*, 1888, p. 316; *Meyer, J.f. O.* 1891, p. 73 (Cebu).
Ptilopus lelancheri (*sic*), *Tristr. Cat. Coll. B.* p. 44 (1889).

Adult male. Head, neck, and upper breast pale ashy white, chin black, the occiput and nape being faintly washed with light green; remainder of the upper parts bright green, with a golden gloss in certain lights; bordering the grey of the breast and intervening between it and the ashy green of the lower parts is a broad dark purple band, rather deeper in the middle than on the sides; under tail-coverts cinnamon; outer edges of the apical portion of the quills pale yellowish; under wing-coverts green; quills underneath lead-grey; tail above green, with a broad greyish-green band at the tip of the lateral feathers; under surface of the rectrices dark grey, with a broad terminal pale grey band: "bill yellowish; feet red" (*Elliot*). Total length 10·5 inches, wing 5·6, tail 4, culmen 0·65, tarsus 0·8.

Female. Bright green, paler and greyish below; anterior part of the head greenish grey; chin black; a dark purplish band on the breast, more or less well defined, sometimes wanting; lower abdomen whitish; under tail-coverts pale cinnamon; wings and tail as in the male.

Young. Green, with a dark pectoral band.

Hab. Philippines—Palawan, Luzon, Guimaras, Negros, and Cebu.

a. ♂ ad. sk.	Luzon, April (*A. B. Meyer*).		Tweeddale Coll.
b. ♂ ad. sk.	N. Panay, March (*A. B. M.*).		Tweeddale Coll.
c, d, e. ♂ ♀ ad. sk.	Guimaras, March (*A. B. M.*).		Tweeddale Coll.
f. ♂ imm. sk.	Valencia, Aug. (*A. H. Everett*).		Tweeddale Coll.
g. ♀ ad. sk.	Philippine Islands.		Cuming Coll.
h. ♀ ad. sk.	Philippine Islands.	(One of the types of *L. gironieri*).	Verreaux Coll.
i. ♂ ad. sk.	[New Guinea.]		Verreaux Coll.

11. Ptilopus jambu.

Pooni Jamboo, *Marsd. Sumatr.* p. 84.
Jamboo-Pigeon, *Lath. Syn.* ii. 2, p. 627, n. 16 (1783).
Columba jambu, *Gm. S. N.* ii. 2, p. 784, n. 63 (1788); *Temm. & Knip, Pig.* p. 65, pls. 27 (♀), 28 (♂) (1808–11); *Raffl. Tr. Linn. Soc.* xiii. p. 316 (Sumatra) (1822); *Wagl. Syst. Av.* Columba, n. 28 (1827); *Eyton, P. Z. S.* 1839, p. 107 (Malacca); *Schleg. Handl. Dierk.* i. p. 411 (1857).

Columba jambos, *Lath. Ind. Orn.* ii. p. 598, n. 18 (1790); *Bonn. Enc. Méth.* p. 252 (1790); *Temm. Pig. et Gall.* i. pp. 257, 469 (1813); *Vieill. N. D.* xxvi. p. 349 (1818); *Desm. Dict. Sc. Nat.* xl. p. 333 (1826); *Less. Tr. d'Orn.* p. 472 (1831).

Columba jamboo, *Steph. Gen. Zool.* xi. 1, p. 49 (1819), xiv. 1, p. 284 (1826).

Ptilinopus jambu, *Less. Compl. de Buff. Ois.* viii. p. 27 (1837), 2nd ed. p. 276 (1838); *Hartl. Syst. Verz. Brem.* p. 97 (1844); *Blyth, Cat. B. Mus. A. S. B.* p. 230, n. 1395 (1849); *Brügg. Abh. naturw. Ver. Brem.* v. p. 536 (1878).

Ptilonopus jambu, *G. R. Gr. Gen. B.* ii. p. 467, n. 16 (1844); *id. List of Gallinæ B. M.* p. 2 (1844); *id. List B. Brit. Mus.* Columbæ, p. 7 (1856); *Sclat. P. Z. S.* 1863, p. 221 (Borneo); *Wall. Ibis*, 1865, p. 378; *id. J. f. O.* 1866, p. 278; *Salvad. Ucc. Born.* p. 289 (1874); *Sharpe, Ibis*, 1877, p. 23; *Hume, Str. Feath.* viii. p. 67 (1878); *Vorderm. N. T. N. I.* l. p. 503 (1890) (Billiton).

Ramphiculus jambu, *Bp. Consp.* ii. p. 17 (1854); *id. Compt. Rend.* xxxix. p. 878 (1854), xl. p. 216, n. 35; *id. Coup d'œil Ordr. Pig.* pp. 10, 54, n. 35 (1855); *Moore, P. Z. S.* 1859, p. 465 (Pinang and Malacca); *G. R. Gr. Hand-list*, ii. p. 227, n. 9150 (1870); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 7 (1873).

Rhamphiculus jambu, *Rchnb. Tauben*, p. 99, t. 239. ff. 1334–35, t. 244. ff. 3488–89 (1862); *A. Müll. J. f. O.* 1882, p. 431.

Ptilopus jambu, *Schleg. De Dierent.* p. 210 (1864); *id. Mus. P.-B.* Columbæ, p. 36 (Luzon) (1873); *Gieb. Thes. Orn.* iii. p. 365 (1877); *Elliot, P. Z. S.* 1878, p. 554; *Beccari, Ann. Mus. Civ. Gen.* xiii. p. 454 (Sumatra) (1878); *Salvad. Ann. Mus. Civ. Gen.* xiv. p. 244 (Sumatra) (1879); *Sharpe, P. Z. S.* 1879, p. 348 (Labuan), 1881, p. 299 (Sandakan, N.E. Borneo); *Salv. Cat. B. Strickl. Coll.* p. 555 (1882); *Sclat. List Vert. An.* 8th ed. p. 444 (1883); *Sharpe, P. Z. S.* 1887, p. 432 (Perak); *Snellem. Sum.-Exped.* i. *Vog.* p. 48 (1887); *Gigl. & Salvad. Mem. R. Ac. Sc. Tor.* (2) xxxix. p. 110 (1888); *Everett, Journ. Str. Br. R. As. Soc.* 1889, p. 197; *Vorderm. N. T. N. I.* xlix. pp. 64, 412 (1889); *Tristr. Cat. Coll. B.* p. 44 (1889); *Sharpe, Ibis*, 1890, p. 134.

Ptilinopus (Ramphiculus) jambu, *Stoliczka, J. A. S. B.* xxxix. 2, p. 330 (1870).

Phassa jambu, *Heine & Rchnw. Nomencl. Mus. Hein. Orn.* p. 281 (1890).

Adult male. Head deep crimson, this colour extending from the front to the middle of the crown, behind the eyes, and across the ear-coverts to the throat; a brown chestnut stripe down the chin and middle of the throat; hind part of the head, nape, and whole upper parts shining bronze-green; hind part of the ear-coverts, sides, and front of neck pure white, passing into buffy white along the sides of the breast and whole of the abdomen; middle of the breast of a beautiful pink colour; flanks and axillaries greyish green; thighs greyish green; under tail-coverts deep cinnamon: wings like the back; primaries black, their outer webs dark bluish green, first primary abruptly attenuated at tip; secondaries and tips of primaries narrowly margined exteriorly with buffy white; wings underneath lead-grey, under wing-coverts green; tail above green, with a broad buffy green apical band, below blackish grey with a

light apical band: "irides red" (*Beccari*): "bill bright yellow, feet dark red" (*Wallace*). Total length about 10 inches, wing 5·6, tail 3·5, bill 0·65, tarsus 0·65.

Female. Green, with the purple of the head very dull; gular stripe dark cinnamon; breast greyish green, becoming greyish white on the lower part; abdomen white; under tail-coverts cinnamon, paler than in the male. Dimensions somewhat smaller.

Young. Like the female, but has no trace of crimson about the head; gular stripe pale cinnamon; under tail-coverts buff-white.

I have seen in the Rothschild collection an adult male specimen, apparently from Malacca, wanting the black stripe on the chin, which is entirely red.

Hab. Malay Peninsula, Sumatra, Bangka, Billiton, and Borneo.

A young Luzon example is stated by Prof Schlegel to be contained in the Leyden Museum (Mus. P.-B. *Columbæ*, p. 36, n. 7); but either the habitat is not correct, or that specimen belongs to some other allied species; perhaps it is a young of *P. leclancheri*.

a. ♂ ad. st.	Indian Archipelago.	Purchased.
b, *c*. ♂ ♀ ad. sk.	Perak.	L. Wray, Esq. [P.].
d. ♂ ad. sk.	Selangore, July (*W. Davison*).	Hume Coll.
e, *f*, *g*. ♂ ♀ ad. sk.	Klang, Feb., March (*W. Davison*).	Hume Coll.
h, *i*. ♀ ad. et ♂ juv. sk.	Pulo Seban, Nov. (*W. Davison*).	Hume Coll.
k–*n*. ♂ ♀ ad. et juv. sk.	Malacca (*Cantor*).	India Museum [P.].
o, *p*, *q*. ♂ ad. sk.	Malacca (*Wallace*).	
r–*x*. ♂ ♀ ad. et imm. sk.	Malacca, July, Aug.	Hume Coll.
y, *z*. ♂ ♀ ad. sk.	Malacca, Aug. (*R. G. W. R.*).	Tweeddale Coll.
a', *b'*. ♂ ♀ ad. sk.	Singapore Is., Feb. (*W. Davison*).	Hume Coll.
c', *d'*. ♂ (♀ ?) ad. sk.	Sumatra (*Raffles*).	India Museum [P.].
e'. ♂ juv. sk.	Sumatra.	Wallace Coll.
f', *g'*. ♂ (♀?) ad. sk.	Lawas River, Borneo.	H. Veitch, Esq. [P.].
h', *i'*, *k'*. ♂ ♀ ad. sk.	Busan, Sarawak (*A. H. Everett*).	
l'. ♂ ad. sk.	Labuan, N. Borneo, June.	J. Whitehead, Esq. [P.].
m'. ♂ juv. sk.	Niah, Labuan, Oct.	A. H. Everett, Esq. [C.].
n', *o'*. (♀?) ad. et juv. sk.	Baram, N.W. Borneo.	A. H. Everett, Esq. [C.].
p'. ♀ ad. sk.	Dulit, N.W. Borneo, 4000 feet.	C. Hose, Esq. [C.].

β. PTILOPUS.

	Type.
Ptilinopus, *Sw. Zool. Journ.* i. p. 473 (1825).....	P. swainsoni.
Ptilonopus, *Sw. Class. B.* ii. p. 347 (1837).....	P. purpuratus (?).
Ptilopus, *Strickl.* (*nec Schönh.* 1826) *Ann. & Mag. N. H.* vii. p. 35 (1841) (= Ptilinopus).	
Kurukuru, *Des Murs & Prév., Voy. de la Vénus, Zool.* p. 220 (1855?)*	P. purpuratus.
Thouarsitreron, *Bp. Consp. Av.* ii. p. 16 (1854)....	P. dupetit-thouarsi.
Kurutreron, *Bp. Consp. Av.* ii. p. 16 (1854).....	P. purpuratus.
Ptilotreron, *Bp.* 1854 (*teste G. R. Gr. Cat. Gen. & Subgen. B.* p. 97, n. 1642, 1855).....	P. purpuratus.
Curotreron, *Heine, Nomencl. Mus. Hein. Orn.* p. 280 (1882–90) (= Kurutreron, *Bp.*).	
Terenotreron, *Heine, l. c.* (= Thouarsitreron, *Bp.*).	

Range. Australia, Eastern Austro-Malay Archipelago, and Polynesia.

Key to the Species.

a. No purple-red spot at the base of the lower mandible.
  a'. Under tail-coverts in adult birds purple-red.
    a''. Colour of the back, wings, and tail green.
      a'''. Middle of the abdomen purple-red; feathers of the lower throat and crop-region with no purple-red colour..... *greyi*, p. 85.
      b'''. Middle of the abdomen with no purple-red; feathers of the crop-region with dark purple-red colour in the middle hidden part.
        *a*⁴. Lower breast and abdomen orange-yellow. *pelewensis*, [p. 6.
        *b*⁴. Lower breast and abdomen not orange-yellow, but pale yellowish ..... *perousei* ♀, [p. 87.
    b''. Colour of the back yellowish; upper wing-coverts and tail-feathers light grey, with yellowish edges; a broad purple-red band across the back and upper wing-coverts .... *perousei* ♂, p. 87.
  b'. Under tail-coverts orange or yellow, more or less deep, or even very pale.
    c''. Top of the head or cap whitish or pale grey, with no red or purple tinge.
      c'''. Top of the head or cap whitish; scapulars and tertials with dark blue spots near the tip; tail-band broad, of a yellowish white. *dupetit-thouarsi*, [p. 89.
      d'''. Top of the head or cap grey.
        *c*⁴. Scapulars and tertials with dark blue spots near the tips; subapical tail-band grey and rather narrow ..... *xanthoyaster*, [p. 91.
        *d*⁴. Scapulars and tertials with rosy spots near the tips; apical tail-band broad, of a pale yellow ..... *richardsi*, p. 92.
    d''. Top of the head or cap purple-red or pale lilac.

* The genus *Kurukuru* is mentioned by Bonaparte (Consp. Av. ii. p. 19) in 1854, so that the date of the 'Voyage de la Vénus' must be earlier than 1854.

e'''. Top of the head or cap purple-red or magenta; underparts with coloured transverse band.

e^4. Terminal tail-band very bright yellow and covering also the two central feathers.

a^5. Terminal yellow tail-band paler; abdominal patch dark green, purple in the middle ..... [p. 93. *ponapensis*,

b^5. Terminal yellow tail-band broader and brighter; no dark green patch (purple in the middle) on the abdomen ..... [p. 94. *hernsheimi*,

f^4. Tail-band yellowish or greyish, not very bright, neither very sharply defined.

c^5. Tail-band yellowish.

a^6. Spots on the inner secondaries and scapulars dark blue.

a^7. No yellow tinge in front of the pale rose-purple abdominal patch. *swainsoni*, p. 95.

b^7. A distinct yellow tinge in front of the pale rose abdominal patch.

a^8. Front neck and crop-region more greenish ..... *ewingi*, p. 96.

b^8. Front neck and crop-region yellower ..... *flavicollis*, p. 97.

b^6. Spots on the inner secondaries and scapulars lavender; a distinct brown rufous tinge on the abdomen ..... *fasciatus*, p. 98.

d^5. Tail-band greenish grey; abdomen green, with no brown rufous tinge; spots on the inner secondaries and scapulars blue ..... [p. 100. *porphyraceus*, *rarotongensis*.

f'''. Top of the head or cap lilac or pale purple, and no transverse coloured band on the underparts. [p. 103.

g^4. Tail above with a distinct coppery lustre. [p. 104.

e^5. Throat and breast distinctly grey .... *coralensis*,

f^5. Throat and breast dull greenish, with no distinct grey tinge ..... [p. 105. *smithsonianus*.

h^4. Tail above bright metallic grass-green.

g^5. Tail with a subapical greyish band, not very distinct on the upper surface; lower breast and abomen with a slight green-olive tinge; male with the crown lilac, with scarcely a trace of a surrounding greenish band behind; female (?) with no lilac tinge on the upper part of the head, which is entirely grey..... [p. 105. *purpuratus*,

h^5. Tail with a broad apical greyish band, slightly tinged with yellow; lower breast and abdomen distinctly olive-yellow, the latter brighter yellow; crown lilac, surrounded behind by a distinct olive-yellow band ..... [p. 107. *chrysogaster*,

b. A purple-red spot at the base of the lower mandible.

c'. Chin and middle of the throat yellowish white.

e''. A deep purple patch on the middle of the breast; abdomen orange-yellow	p. 108. *roseicapillus*,
f''. No purple patch on the middle af the breast.	
g'''. No yellow band encircling behind the rosy-purple cap; neck yellowish green, with no grey tinge whatever	*mercieri*, p. 110.
h'''. A yellow band encircling behind the pink rosy cap; anterior part of the neck and crop tinged with grey at the tips of the feathers.....	*tristrami*, p. 110.
d'. Chin pale purplish red; a very broad pectoral purple patch.....	*huttoni*, p. 111.

12. Ptilopus greyi.

Ptilopus purpuratus, *Bp.* (*nec Gm.*) *Consp. Av.* ii. p. 19 (1854) (Vanikoro).

Ptilonopus greyii, *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 4 (1856) (Lovalty Isl., Isle of Pines) (descr. nulla); *Bp. Icon. Pig.* pl. xx. (1857); *G. R. Gr. Cat. B. Trop. Isl.* p. 38 (1859) (Erromango); *id. P. Z. S.* 1859, p. 165; *Jouan, Mém. Soc. Imp. Sc. Nat. Cherb.* ix. pp. 95, 229 (1863); *Marie, Act. Soc. Linn. Bord.* xxvii. p. 328 (1869); *Tristr. Ibis*, 1876, p. 264 (Aniwa, eggs); *Marie, Ibis*, 1877, p. 362.

Ptilopus gravi, *Verr. & Des Murs, Rev. et Mag. de Zool.* 1860, p. 435; *Gieb. Thes. Orn.* iii. p. 364 (1877).

Ptilonopus purpuratus, part., *Rchnb. Tauben*, p. 94 (1862).

Ptilinopus purpuratus, part., *Rchnb. op. cit.* ii. p. 177 (nec tab.) (1862).

Ptilinopus greyi, *Finsch & Hartl. Orn. Centralpol.* p. 126 (1867); *G. R. Gr. Hand-list*, ii. p. 225, n. 9142 (1870).

Ptilopus greyi, *Schleg. Mus. P.-B.* Columbæ, p. 7 (1873); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 8 (1873); *Elliot, P. Z. S.* 1878, p. 523; *E. L. & E. L. C. Layard, Ibis*, 1878, pp. 261, 275, 280 *Tristr. Ibis*, 1879, pp. 191, 193; *Schmeltz, Verh. Ver. Hamb.* 1877 (1879), p. 78; *E. L. & E. L. C. Layard, Ibis*, 1880, p. 231 (eggs), 1881, pp. 133, 139, 1882, pp. 527, 544; *Schalow, J. f. O.* 1887, p. 245; *Tristr. Cat. Coll. B.* p. 44 (1889); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 280 (1890); *Wiglesw. Ibis*, 1891, p. 582; *id. Aves Polynes.* p. 51, n. 263 (1891).

Ptilonopus gravi, *Finsch, P. Z. S.* 1874, p. 94.

Ptilopus apicalis, *Rams.* (*nec Bp.*) *Pr. Linn. Soc. N. S. W.* iii. p. 339 (1879) (New Hebrides); *E. L. & E. L. C. Layard, Ibis*, 1881, p. 139.

? Ptilinopus fasciatus, *Schalow, J. f. O.* 1887, p. 245 (New Caledonia) (young?).

Adult male. Upper part of the head purple-rose or magenta, margined posteriorly with yellow; rest of the head, neck, and breast dull greyish green; back, rump, and upper tail-coverts bronze-green; chin and throat yellowish; a dull purple patch on the middle of the abdomen; lower abdomen and vent purple, more or less [illegible] with [illegible] under tail-coverts dull rose-colour, with [illegible] tinged [illegible] yellow; wings shining gr[illegible] [illegible] more or less

with narrow yellow edges to the outer webs; the tertials with grey spots towards the tip; under wing-coverts grey, with a slight green tinge; under surface of the quills dark grey; tail above green, with a subterminal pale grey band, underneath dark grey: "bill green with a grey tip; legs and feet dark crimson; iris brown chrome" (*Layard*). Total length 8·5 inches, wing 5, tail 3, bill 0·42, tarsus 0·76.

Female. Like the male.

Young. Crown green like the rest of the upper parts; feathers of the underparts with distinct yellow edgings; also the upper wing-coverts with broad yellow edges; rose abdominal patch mixed with yellow; in very young birds probably the rose-colour is entirely replaced with yellow; vent yellow; under tail-coverts partly yellow and partly rose-colour, entirely yellow in very young birds.

I have seen the specimen from Vanikoro; Lifu (Loyalty Islands) specimens are larger than those from New Hebrides, and especially from Vaté.

Hab. New Caledonia, with Island of Pines; Loyalty Islands, Lifu: New Hebrides—Erromango, Aniwa, Vaté, Mallicolo, and ?Api; and Santa Cruz Islands, Vanikoro.

a. Ad. sk.	Isle of Pines (*McGillivray*).	Voyage of H.M.S. 'Rattlesnake' } Types of species.
b, c. Ad. et juv. sk.	Loyalty Is.	Sir G. Grey [P.]. }
d, e. Ad. sk.	Loyalty Is.	Rev. J. Whitmee [P.].
f, g. ♂ ♀ ad. sk.	Lifu, Loyalty Is., Jan., Aug. (*E.L. Layard*).	Salvin-Godman Coll.
h, i. Ad. et juv. sk.	New Hebrides.	J. McGillivray, Esq. [C.].
k. ♂ ad. sk.	Port Resolution, Aug.	J. McGillivray, Esq. [C.].
l, m. Ad. et imm. sk.	Erromango.	J. McGillivray, Esq. [C.].
n. Imm. sk.	Aneiteum (*E. L. Layard*).	Tweeddale Coll.
o. ♀ juv. sk.	Vaté Is., June (*E. L. Layard*).	Salvin-Godman Coll.
p. ♂ ad. sk.	Mallicolo, June (*E. L. Layard*).	Salvin-Godman Coll.

13. Ptilopus pelewensis.

Ptilinopus pelewensis, *Hartl. & Finsch, P. Z. S.* 1868, pp. 7, 118 (Pelew Islands), 1872, p. 101; *Gräffe, Journ. Mus. Godeffr.* Heft i. pl. 7. f. 5 (1873); *Finsch, Journ. Mus. Godeffr.* Heft viii. p. 24 (1875), xii. p. 37 (1876); *Schmeltz, Etnogr. Abth. Mus. Godeffr.* p. 407 (note) (1881).

Ptilopus pelewensis, *G. R. Gray, Hand-list*, ii. p. 225, n. 9127 (1870); *Gieb. Thes. Orn.* iii. p. 356 (1877); *Elliot, P. Z. S.* 1878, p. 531; *Schmeltz, Verh. Ver. Hamb.* 1877 (1879), p. 178; *Tristr. Cat. Coll. B.* p. 44 (1889); *Wiglesw. Ibis*, 1891, p. 584; *id. Aves Polynes.* p. 48, n. 251 (1891).

Adult. Upper part of the head magenta or rose-violet, paler on the forehead, and encircled behind by a yellow margin; rest of the head, neck, and breast greyish green; upper parts green; feathers

of the upper part of the breast crossed with concealed violet bands; lower breast and middle of the abdomen orange; lower abdomen and vent lemon-yellow; sides greyish green; under tail-coverts magenta or rose-violet, with narrow bright orange edgings*: wings shining green, secondaries with narrow yellow edgings to the outer webs; the innermost secondaries or tertials with acute violet-blue spots towards the tips; first primary much attenuated at the tip; under wing-coverts greenish grey, with yellow edgings; quills underneath slate-grey; tail above green with a pale yellow band at the tip, underneath grey: "bill lead-colour, with greenish-white tip; feet dark blood-red" (*Hartl. & Finsch*). Total length about 8 inches, wing 5·25, tail 2·7, bill 0·58, tarsus 0·8.

Young. "Green, with narrow yellow edgings on the tectrices and scapulars; head above also green, with a pale yellow supercilium; underparts dirty olive-green; vent, anal region, and under tail-coverts straw-yellow; on the vent some orange feathers; tail green, with a whitish patch on the inner webs above the end, forming an irregular cross band; feet and bill dark. Wing 4·8 inches, tail 2·4, bill 0·6." (*Hartl. & Finsch.*)

Hab. Pelew Islands.

a. Ad. sk.	Pelew Is. (*J. Kubary*).	Salvin-Godman Coll.
b. Ad. sk.	Pelew Is. (*Peters*).	Salvin-Godman Coll.
c. Ad. sk.	Pelew Is.	— Cohen, Esq. [C.].
d, e. Ad. et juv. sk.	Pelew Is. (*Cohen*).	Salvin-Godman Coll.

14. Ptilopus perousei.

Ptilinope de Marie, *Hombr. et Jacq. Voy. Pôle Sud*, pl. 29. f. 2 (1841).

Columba kurukuru superba, *Hombr. et Jacq. Ann. Sc. Nat.* xvi. p. 316 (1841) (Balaou, Iles Viti).

Ptilinopus perousii, *Peale, U.S. Expl. Exped.* p. 195, pl. 54 (1848) (Samoa and Feejee); *Hartl. Archiv f. Natury.* 1852, 1, pp. 115, 134; *id. J. f. Orn.* 1854, p. 169; *Cass. U.S. Expl. Exped.* 2nd ed. p. 274, pl. 33 (1858); *Finsch & Hartl. Orn. Centralpolyn.* pp. 110, 278, t. xi. f. 1 (1867); *iid. P. Z. S.* 1869, p. 548 (Tonga); *iid. J. f. O.* 1870, pp. 122, 131; *Gräffe, J. f. O.* 1870, p. 408; *G. R. Gr. Hand-list*, ii. p. 225, n. 9121 (1870) (Navigator's Isl.); *Finsch, J. f. O.* 1872, pp. 32, 44; *Gräffe, Journ. Mus. Godeffr.* i. p. 49 (1873); *Whitmee, P. Z. S.* 1873, p. 153; *E. L. Layard, P. Z. S.* 1875, p. 435 (Viti Levu, Vanua Levu), 1876, pp. 495 (Upolu), 502; *id. Ibis*, 1876, pp. 392, 506; *Nehrk. J. f. O.* 1879, p. 407; *Rchnw. J. f. O.* 1891, p. 127; *Hartert, Kat. Vogels.* p. 190 (1891).

Ptilonopus (de Marie), *G. R. Gr. Gen. B.* iii. App. p. 23 (1849).

Ptinilopus mariæ, *Jacq. et Puch. Voy. Pôle Sud*, iii. p. 115 (1853).

Kurukuru samoensis, *Des Murs & Prév. Voy. Vénus, Zool.* p. 247 (1855?).

Ptilonopus samoensis, *J. Verr. MS., fide Des Murs & Prév. l. c.*

Ptilopus mariæ, *Bp. Consp. Av.* ii. p. 22 (1854); *id. Compt. Rend.*

* Apparently by mistake, in the original description, the under tail-coverts were said to be white at base, then yellow, with tips rose-violet.

xxxix. p. 877 (1854), xl. p. 216, n. 49 (1855); *id. Coup d'œil Ordre Pig.* pp. 9, 54, n. 49 (1855); *id. Icon. Pig.* pl. 26 (1857); *North, Pr. Linn. Soc. N. S. W.* (2) ii. p. 445 (1887).

Ptilonopus mariæ, *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 4 (1856); *id. Cat. B. Trop. Isl.* p. 37 (1859); *Rchnb. Tauben*, p. 96, t. 240. f. 2586 (1862), ii. p. 178, t. iv. ff. 38–40, t. v. ff. 49, 50 (1862); *Ramsay, Pr. Linn. Soc. N. S. W.* ii. p. 140 (1878).

Ptilinopus cæsarinus, *Hartl. J. f. O.* 1864, p. 413 (juv., Viti Levu).

Ptilinopus mariæ, *G. R. Gr. Hand-list*, ii. p. 225, n. 9120 (1870) (Feejee Isl.).

Ptilopus perousii, *Schleg. Mus. P.-B.* Columbæ, p. 10 (1873); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 8 (1873); *Gieb. Thes. Orn.* iii. p. 366 (1877); *Elliot, P. Z. S.* 1878, p. 545 (part.?); *Schmeltz, Verh. Ver. Hamb.* 1877 (1879), p. 179; *Tristr. Cat. Coll. B.* p. 44 (1889); *Wiglesw. Ibis*, 1891, p. 580; *id. Aves Polynes.* p. 51, n. 264 (1891).

Ptilonopus perousii, *Whitmee, Ibis*, 1875, p. 441; *E. L. Layard, P. Z. S.* 1876, pp. 495, 502.

Adult male. Front and crown, and a broad band across the back, continued over the smaller upper wing-coverts, dark purple-red; rest of the head, neck, and abdomen pale white-yellow; feathers of the breast, split at their ends, have a rose-red band showing through the white tips; beneath these there is a broad purple band, with a yellow or orange tinge showing through; under tail-coverts rose-purple; back, rump, and upper tail-coverts pale greenish yellow; upper wing-coverts (except the smaller ones) and tertials light grey, with greenish-yellow edgings; quills above dark bronze-green; under wing-coverts light grey, under surface of the quills dark grey; tail light grey, with the edges of the feathers greenish yellow, and with an imperfect green band towards the tip: "iris red" (*Peale*), "whitish" (*Hombron*), "light gold, or yellow-buff; bill green or slate-bluish; feet green or greenish" (*Layard*). Total length 8·25 inches, wing 5, tail 3·25, bill 0·47, tarsus 0·9.

Female. According to Layard different from the adult male. Forehead and crown purple-red; occiput and hind neck green, with a grey tinge; back, rump, and upper tail-coverts bronze-green; sides of the head and neck greyish green, chin and throat whitish; breast grey, the feathers with a concealed dark purple band, and with the base more or less green; on the lower breast a dull orange patch; abdomen pale greenish yellow; under tail-coverts magenta; wings shining green; greater wing-coverts and inner secondaries edged with yellow, the latter with a blue tinge towards their tip; primaries deep bronze-green; tail above bronze-green, with a subterminal grey spot on the inner web of the lateral tail-feathers: "bill green; legs green; iris yellow-buff" (*Layard*).

Young. Resembles the female, but the occiput and hind neck are green, without the grey tinge; also the sides of the head and of the neck are green; throat grey; feathers of the breast green, with grey tips and devoid of the concealed dark purple bands; abdomen dull yellow; under tail-coverts lemon-yellow; wings and tail as in the female: "bill and feet green; iris yellow-buff" (*Layard*).

The majority of the Fiji and Tonga birds have an incomplete green band on the tail, which is generally wanting in the Samoa birds; the latter have the tail entirely light grey.

This species passes through many stages before assuming the full dress. In not fully adult males the smaller upper wing-coverts are scarcely tinged with deep purple-red, the purplish band on the lower breast is wanting or scarcely visible, and the tail shows a more or less complete green subterminal band. The young bird (*P. cæsarinus*) is so very different from the adult that even Mr. E. L. Layard (P. Z. S. 1875, p. 436) thought that it could not belong to the present species, but to *P. fasciatus*; he declares that he had never seen a specimen of *P. perousei* with yellow vent-feathers (or under tail-coverts?); but there is one collected by him in Mr. Seebohm's collection, and several among the birds enumerated below.

The adult female of this species has a certain resemblance to *P. pulchellus*.

Hab. Samoa Islands—Upolu, Savaii; Tonga Islands—Tongatabu; and Fiji Islands—Balaou, Mathuata, N'gau, Viti Levu, Ovalau, Waikaia, Mokani, Vanua Levu, Loma-loma, Mango, Kandavu, Kanathia, Vatu Lele.

a, *b*. ♂ ad. et ad. sk.	Upolu, Samoa, Aug.	J. Brenchley, Esq. [P.].
c. ♂ ad. sk.	Samoa.	Godeffroy Museum.
d. ♂ ad. sk.	Samoa.	Rev. J. B. Stair [P.].
e. ♂ ad. sk.	Samoa.	Rev. J. Whitmee [P.].
f, *g*, *h*. ♂ ♀ ad. sk.	Savai, July (*Rev. G. Brown*).	Salvin-Godman Coll.
i. ♂ ad. sk.	Savage Is.	Rev. J. Whitmee [P.].
k. ♂ ad. sk.	N'gau Is., Fiji.	Voyage of H.M.S. 'Herald' [C.].
l. ♂ ad. sk.	Vitu Levu, Aug. (*E. L. Layard*).	Tweeddale Coll.
m. ♂ ad. sk.	Ovalau, Dec. (*E. L. Layard*).	Salvin-Godman Coll.
n, *o*. ♂ ad. et juv. sk.	Rewa, Oct. (*E. L. Layard*).	Tweeddale Coll.
p, *q*. ♂ ♀ juv. sk.	Wakaia, Dec. (*E. L. Layard*).	Tweeddale Coll.
r, *s*. ♂ juv. sk.	Bua, Dec. (*E. L. Layard*).	Tweeddale Coll.
t, *u*. ♂ ad. et yellow var. sk.	Bua.	Purchased.
v. ♂ ad. sk.	Mango Is., Dec. (*E. L. Layard*).	Tweeddale Coll.

15. Ptilopus dupetit-thouarsi.

Columba Du Petithouarsii, *Nebour, Rev. Zool.* 1840, p. 289; *Less. Descr. Mamm. et Ois.* p. 209 (1847).

Columba kurukuru purpuro-leucocephalis (*sic*), *Hombr. & Jacq. Ann. Sc. Nat.* xvi. p. 316 (1841).

Ptilinope de Dupetit-Thouars, *Hombr. & Jacq. Voy. Pôle Sud*, pl. 29. f. 1 (1841).
Ptilonopus purpuroleucocephalus, *G. R. Gr. Gen. B.* ii. p. 467, n. 24 (1844).
Ptilonopus leucocephalus, *G. R. Gr. List Gallinæ Brit. Mus.* p. 2 (1844).
Ptilinopus emiliæ, *Less. Echo du Monde Savant*, 1845, p. 873.
Ptilonopus dupetitthouarsi, *G. R. Gr. Gen. B.* iii. App. p. 23 (1849); *id. List B. Brit. Mus.* Columbæ, p. 5 (1856); *id. Cat. B. Trop. Isl.* p. 36 (1859).
Ptilinopus dupetit-thouarsi, *Hartl. Arch. f Naturg.* 1852, 1, p. 135; *Jacq. & Pucher. Voy. Pôle Sud*, iii. p. 114, pl. 29. f. 1 (1853); *Hartl. J. f. O.* 1854, p. 170; *Finsch & Hartl. Orn. Centralpol.* p. 129 (1867); *Finsch, P. Z. S.* 1874, p. 94, 1877, p. 410; *Garrett, Ethnogr. Abtheil. Mus. Godeffr.* p. 238 (1881).
Thouarsitreron leucocephala, *Bp. Consp. Av.* ii. p. 16 (1854); *id. Compt. Rend.* xxxix. p. 876 (1854), xl. p. 216, n. 32 (1855); *id. Coup d'œil Ordr. Pig.* pp. 8, 54, n. 32 (1855); *id. Icon. Pig.* pl. 17 (1857).
Kurukuru dupetit-thouarsi, *Des Murs & Prév. Voy. Vénus, Zool.* pp. 241, 268 (nec pl. 7) (1855 ?).
Thouarsitreron dupetitthouarsii, *Rchnb. Tauben*, p. 93, t. 240. f. 2587 (1862); *G. R. Gr. Hand-list*, ii. p. 226, n. 9135 (1870); *Sousa, Mus. Nac. L sb.* Columbæ, p. 7 (1873).
Ptilopus dupetit-thouarsii, *Schleg. Mus. P.-B.* Columbæ, p. 13 (1873); *Gieb. Thes. Orn.* iii. p. 363 (1877); *Elliot, P. Z. S.* 1878, pp. 512, 539; *Schmeltz, Verh. Ver. Hamb.* 1877 (1879), p. 179; *Tristr. Ibis*, 1881, p. 251; *Salv. Cat. B. Strickl. Coll.* p. 555 (1882); *Tristr. Cat. Coll. B.* p. 44 (1889); *Wiglesw. Ibis*, 1891, p. 569.
Terenotreron dupetit-thouarsi, *Heine & Rchnw. Nomencl. Mus. Hein. Orn.* p. 280 (1890).
Ptilopus petit-thouarsi, *Wiglesw. Aves Polynes.* p. 48, n. 248 (1891).

Adult. Top of head whitish, surrounded faintly with a yellowish-green narrow band; anterior part of the cheeks whitish; throat and spot in front of the eye pale yellow; neck and upper part of back greyish green; feathers of the breast yellowish olive, tipped with greyish green; underparts olive, becoming yellower on the abdomen and pure yellow on the under tail-coverts; in the middle of the breast a rosy patch, surrounded with dull orange; back and wings green, with a yellow cast; primaries blue-green, secondaries and greater wing-coverts bright green, edged with yellow; larger scapulars and tertials with large deep blue subapical spots and edged with golden green; under wing-coverts greenish grey; quills below grey; tail above bright green, below grey, with a broad apical pale yellow band: "bill horn-green; eye-ring bright red; feet pale red" (*Garrett*). Total length about 9 inches, wing 5·9, tail 3·4, bill 0·45, tarsus 0·9.

Hab. Marquesas Islands—Christina, Nukahiwa.

a.	Ad. sk.	Marquesas Is.	Gould Coll.
b.	Ad. sk.	Marquesas Is.	Purchased.
c.	Ad. sk.	Marquesas Is.	Sir E. Belcher [P.].
d.	Ad. sk.	Nukahiwa, Marquesas Is.	Purchased.

16. Ptilopus xanthogaster.

Columba purpurata, *Temm.* (*nec Gm.*) *Pl. Col.* 254 (livr. 43, 1824); *Desm. Dict. Sc. Nat.* xl. p. 339 (partim) (1826).

? Ptilinopus purpuratus, *Steph.* (*nec Gm.*) *Gen. Zool.* xiv. p. 277 (1826).

Columba xanthogaster, *Wagl. Syst. Av.* Columba, p. 29 (1827).

Columba diadematа, *Temm. Pl. Col.* 254 (livr. 95, 1835); *Müll. Verh. Land- en Volkenk.* p. 119 (1839-1844); *Wald. Tr. Zool. Soc.* viii. p. 83 (1872).

Columba flavigaster, *Sw. Class. B.* ii. p. 347 (1837).

Ptilonopus xanthogaster, *G. R. Gr. Gen. B.* ii. p. 466, n. 4 (1844); *id. List B. Brit. Mus.* Columbæ, p. 5 (1856) (Mariane Island !); *id. Cat. B. Trop. Isl.* p. 36 (1859); *Hartl. & Finsch, Orn. Centralpol.* p. 122 (1867).

Kurukuru xanthogaster, *Des Murs & Prév. Voy. Vénus, Zool.* pp. 238, 268 (1855 ?).

Thouarsitreron diadematа, *Bp. Consp. Av.* ii. p. 16 (1854); *id. Compt. Rend.* xxxix. p. 876 (1854), xl. p. 216, n. 33; *id. Coup d'œil Ordre Pig.* p. 8, 54, n. 33 (1855), xliii. p. 834 (1856); *Rchnb. Tauben*, p. 93, t. 238. ff. 1326-27 (1862).

"Trygon (Ptilinopus) diadematus, *Rchnb.*," *G. R. Gr.* (errore) *List B. Brit. Mus.* Columbæ, p. 6 (1856).

Ptilonopus diadematus, *G. R. Gr. P. Z. S.* 1860, p. 300; *Finsch, Neu-Guin.* p. 176 (1865); *Wall. Ibis*, 1865, p. 380, n. 31; *Finsch & Hartl. Orn. Centralpol.* p. 124 (1867); *Wall. Malay. Archip.* i. p. 457 (1869).

Ptilopus aurantiiventris, *Rosenb. Nat. Tijdschr. Ned. Ind.* xxix. p. 144 (1867); *id. Reis naar Zuidoostereil.* pp. 81, 86, 125 (1867).

Ptilopus diadematus, *Schleg. N. T. D.* iii. p. 346 (1866); *Rosenb. Reis naar Zuidoostereil.* p. 125 (1867); *Schleg. Mus. P.-B.* Columbæ, p. 11 (1873); *Gieb. Thes. Orn.* iii. p. 303 (1877); *Rosenb. Malay. Archip.* p. 372 (1879).

Thouarsitreron xanthogaster, *G. R. Gr. Hand-list*, ii. p. 226, n. 9136 (1870).

Ptilopus xanthogaster, *Salvad. Ann. Mus. Civ. Gen.* ix. p. 199, n. 31 (1876); *Elliot, P. Z. S.* 1878, p. 540; *Salvad. P. Z. S.* 1879, p. 62; *id. Ann. Mus. Civ. Gen.* xiv. p. 659 (1879); *Meyer, Verh. z.-b. Ges. Wien*, 1881, p. 769 (Lettie); *Salvad. Orn. Pap. e Mol.* iii. pp. 4, 554 (1882); *Sclat. P. Z. S.* 1883, pp. 51, 195, 200 (Timor Laut); *Forbes, P. Z. S.* 1884, pp. 430, 433, n. 47; *id. Nat. Wander.* p. 366 (1885); *Büttik. Not. Leyd. Mus.* viii. p. 66 (1886); *Tristr. Cat. Coll. B.* p. 45 (Tenimber Isl.) (1889); *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 50 (*Agg. Orn. Pap. e Mol.* p. 176) (1891).

Ptilopus flavovirescens, *Meyer, SB. u. Abh. Ges. Isis*, 1884, Abh. i. p. 50 (Timor Laut, Tenimber); *Salvad. Ibis*, 1884, p. 355; *id. P. Z. S.* 1884, p. 580; *id. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 50 (*Agg. Orn. Pap. e Mol.* p. 176) (1891).

Ptilonopus flavovirescens, *Pelz. & Lor. Ann. Naturh. Hofmus.* iii p. 47 (1888).

Terenotreron xanthogaster, *Heine & Rchnw. Nomencl. Mus. Hein. Orn.* p. 280 (1890) (Aru !).

Adult. Head and neck grey; top of the head bounded, except in front, by a narrow yellow band, which begins at the lores; back, rump, and upper tail-coverts green, a spot at the base of the lower

mandible, chin, and middle of the throat pale yellow; grey feathers of the upper breast bifid, with the base yellowish; breast orange-yellow, with a grey patch in the middle; flanks and thighs greenish; abdomen and vent yellow; under tail-coverts orange-yellow: wings glossy green, smaller and median wing-coverts with golden-green edges, the greater ones and secondaries with yellow edges; scapulars and inner secondaries deep blue towards the tip and edged with yellow; under wing-coverts grey, slightly edged with yellow; quills underneath dark grey; tail above green, with a broad pale grey apical band tinged with green, and narrow edges to the feathers; tail below grey, with a whitish apical band: "bill olive-green; feet pale olive" (*Wallace*); "iris pale olive" (*von Rosenberg*). Total length about 9 inches, wing 5, tail 3·14, bill 0·51, tarsus 0·74.

Some specimens from Timor Laut are indistinguishable from others from Banda, having the same grey colour on the head and neck, with no yellowish or greenish tinge, which, when present, probably denotes young age.

I have never seen specimens from Lettie, but, according to Dr. Meyer, who has examined two specimens from there, neither of them has the top of the head pure white-grey; one has it slightly tinged with violet, and the other with bluish grey; it seems to me therefore that they require comparison.

Hab. Banda, Khoor, Ké, Teninber Islands, and Lettie.

a. Ad. sk.	Banda Is.	E. Wilson, Esq. [P.].
b. ♀ ad. sk.	Banda Is.	Wallace Coll.
c. Ad. sk.	Damma Is., Banda Sea, Nov.	P. W. Bassett Smith, Esq. [P.].
d, *e*. ♂ ♀ ad. sk.	Larat, Timor Laut, July, Aug.	H. O. Forbes, Esq. [C.].
f, *g*, *h*. ♂ ♀ ad. sk.	Timor Laut, Aug., Sept. (*H. O. Forbes*).	Tweeddale Coll.

17. Ptilopus richardsi.

Ptilopus richardsi, *Rams. Pr. Linn. Soc. N. S. W.* vi. p. 722 (1881); *Nature*, vol. 25. pp. 282, 355; *Salvad. Ann. Mus. Civ. Gen.* xviii. p. 427, n. 1 (1882); *id. Orn. Pap. e Mol.* iii. p. 554 (1882); *Rams. Pr. Linn. Soc. N. S. W.* vii. p. 39 (1882); *Sclat. P. Z. S.* 1883, p. 348; *Rchnw. & Schal. J. f. O.* 1883, p. 405; *Sharpe in Gould's B. of New Guin.* pt. xviii. pl. 3 (1884); *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 50 (*Agg. Orn. Pap. e Mol.* p. 176) (1891).

Ptilopus rhodostictus, *Tristr. Ibis*, 1882, pp. 139, 144, n. 74, pl. v.; *Rams. ibid.* p. 473; *id. Pr. Linn. Soc. N. S. W.* vii. p. 43 (1882); *Rchnw. & Schal. J. f. O.* 1883, p. 405; *Tristr. Cat. Coll. B.* p. 45 (1889).

Adult male. Top of the head pale grey, slightly tinged with vinaceous, and surrounded posteriorly with a narrow yellowish-green band; lores and anterior part of the cheeks grey, like the top of the head; hind neck greenish yellow, with a greyish tinge, remainder of

the neck and breast paler; feathers of the breast bifid, with the bases pale olive; chin and throat pale yellow; back, rump, and upper tail-coverts green; central part of the scapulars pink; centre of the abdomen and under tail-coverts of a beautiful orange, the latter brighter and tinged with rose-colour in the middle; wings shining green, with a bluish tinge, smaller wing-coverts like the back, secondaries edged with yellow; wings underneath lead-colour; tail green, with a yellow band at the tip: bill greenish, with a lighter tip; feet red. Total length about 9 inches, wing 5·25, tail 3, bill 0·55, tarsus 0·7.

Young. "All the upper surface green, slightly tinged with bronze on the wings and tail; the wing-coverts, secondaries, and scapulars margined with yellow; the three or four smaller innermost secondaries (or tertials) having the tips and the whole of the inner web yellow; except at the base, the primaries narrowly margined with yellow; tail above bronzy green, the tips of all the feathers ash, washed with green and distinctly margined with yellow; the under surface is ashy grey, the tips lighter and margined with yellow; the under tail-coverts and abdomen yellow, the throat pale yellowish; all the rest of the under surface ashy, the tips of all the feathers margined with light yellow; forehead ashy; the first primary attenuated at the tip. Length 6·5 inches, wing 4·8, tail 2·8, tarsus 0·8. Bill olive; feet reddish." (*Ramsay.*)

Hab. Ugi, Solomon Islands.

a. Ad. sk.	[New Ireland], March (*T. Kleinschmidt*).	Godeffroy Museum [P.].
b, *c*. ♂ ad. et ♀ juv. sk.	Ugi, Solomon Is.	Tweeddale Coll.
d. Imm. sk.	Ugi, Solomon Is. (*Richards*).	Salvin-Godman Coll.

18. Ptilopus ponapensis.

Ptilonopus fasciatus?, *Finsch* (*nec Peale*), *Journ. Mus. Godeffr.* Heft xii. p. 37 (1876) (Ponapé).

Ptilonopus ponapensis, *Finsch*, *P. Z. S.* 1877, p. 779; *Schmeltz*, *Ethnogr. Abth. Mus. Godeffr.* p. 353 (note) (1881).

Ptilopus fasciatus (part.), *Elliot*, *P. Z. S.* 1878, pp. 535, 536; *Tristr.* (*nec Peale*) *Cat. Coll. B.* p. 44 (1889).

Ptilopus ponapensis, *Schmeltz*, *Verh. Ver. Hamb.* 1877 (1879), pp. 178, 179; *Finsch*, *J. f. O.* 1880, p. 291; *id. P. Z. S.* 1880, p. 576; *id. Ibis*, 1881, pp. 113, 115: *Wiglesw. Ibis*, 1891, p. 583; *id. Aves Polynes.* p. 50, n. 261 (1891).

Adult male. Forehead and crown to the occiput deep purple-red, bounded behind by an obsolete narrow yellowish band; occiput, sides of head, neck, crop, and upper breast greyish green, with the base of the feathers paler along the middle of the throat; the middle part of the bifid feathers of the crop olive, the base greyish white; lower breast and thighs grass-green; *on the middle of the breast a dark blue-green patch, tinged with dark purple in the centre*; lower abdomen, vent, and hind part of the thighs deep yellow; under tail-coverts

deeper yellow, the longer ones tinged with pink and reddish orange towards the tip; upper surface deep grass-green, the posterior scapulars and the tertials with lilac spots near the tip; quills slate-black, with dark green tips and outer webs; innermost primaries, secondaries, and greater wing-coverts with narrow yellow edges; under surface of the wing grey, but the under wing-coverts with yellowish-green edges: tail-feathers dark grass-green, with a yellow apical band, about 0·75 inch broad. Total length about 8 inches, wing 5, tail 2·7, bill 0·45, tarsus 0·8.

Hab. Ruck group, Eastern Carolines.

a. Ad. sk. Ruck (Hogoleu), July (*Dr. O. Finsch*). Tweeddale Coll.

19. Ptilopus hernsheimi.

Ptilopus hernsheimi, *Finsch, J. f. O.* 1880, p. 303; *id. P. Z. S.* 1880, p. 577; *id. Ibis*, 1881, pp. 106, 107, 108; *Rchnw. & Schal. J. f. O.* 1881, p. 75; *Wiglesw. Ibis*, 1891, p. 583; *id. Aves Polynes.* p. 51, n. 262 (1891).

Adult male. Forehead and crown to the occiput deep purple-red, surrounded behind by an obsolete narrow yellowish band; occiput, sides of head, neck, crop, and upper breast greyish green, with the base of the feathers dull yellowish, the middle part of the furcated feathers of the crop olive, the base greyish white; chin washed with yellowish; lower breast and thighs grass-green; lower abdomen, vent, and hind part of the thighs deep yellow; under tail-coverts deeper yellow, the longest tinged with reddish orange towards the tip; upper surface deep grass-green; the posterior scapulars and the tertials with lilac spots near the tip; quills slate-black, with dark grass-green outer edges and bronzy reflections; innermost three primaries with narrow yellow edges near the tip: under surface of the wing grey; under wing-coverts grey, with yellowish-green edges; tail-feathers dark grass-green, with a bright yellow apical band, about 0·9 inch broad: "bill oil-green; narrow ring round the eyes oil-yellow"; irides with an inner ring yellowish brown, and an outer one dirty white; feet dull purple-red; tarsus with green feathers" (*Finsch*). Total length about 8·5 inches, wing 5·1, tail 3, bill 0·58, tarsus 0·85.

Female. "A little smaller; nape and hind neck duller grey; lower abdomen darker green; otherwise like the male. Wing 4·8 inches, tail 2·1." (*Finsch.*)

This species differs from the allied *P. ponapensis* in wanting entirely the bright coloured patch either on the breast or on the abdomen, and in the broader bright deep yellow band at the end of the tail.

Hab. Kushai or Ualan, E. Carolines.

a. ♂ ad. sk. Kushai, Febr. (*Dr. O. Finsch*). Tweeddale Coll. (One of the types of the species.)

20. Ptilopus swainsoni.

? Columba purpurata, part., *Temm. Pig. et Gall.* i. p. 282 (prem. var.) (1813).

Columba purpurata, var. regina, *Sw. Zool. Journ.* i. p. 474 (1825).

Columba purpurata, *Jard. & Selb.* (*nec auct.*) *Ill. Orn.* ii. pl. 70 (1825–43).

Ptilinopus swainsoni, *Gould, P. Z. S.* 1842, p. 18 (River Clarence and Moreton Bay); *id. Birds Austr.* v. pl. 55 (pt. vii. 1842); *Blyth, Cat. B. Mus. A. S. B.* p. 231, n. 1398 (1849); *Rchnb. Vög. Neuholl.* n. 278 (1850); *Gould, Handb. B. Austr.* ii. p. 106 (1865); *G. R. Gr. Hand-list*, ii. p. 224, n. 9116 (1870); *Hartl. & Finsch, Faun. Centralpolyn.* p. 125 (1867); *Gräffe, Journ. Mus. Godeffr.* pt. i. pl. 7. f. 6 (1873); *Rams. P. Z. S.* 1876, p. 114; *id. Pr. Linn. Soc. N. S. W.* ii. p. 195, n. 513 (1878); *id. Tab. List*, p. 17, n. 527 (1888); *Hartert, Kat. Vogelsamml.* p. 190 (1891).

Ptilonopus swainsoni, *G. R. Gr. Gen. B.* ii. p. 466, n. 6 (syn. emend.) (1844); *id. List B. Brit. Mus.* Columbæ, p. 2 (1856); *Rchnb. Tauben*, p. 94, t. 235. ff. 1309–10 (1862); *Pelz. Novara Reise, Vög.* p. 104 (1865).

Ptilopus swainsoni, *Bp. Consp. Av.* ii. p. 19 (1854); *id. Compt. Rend.* xxxix. p. 877 (1854), xl. p. 216, n. 40 (1855); *id. Coup d'œil Ordre Pig.* pp. 8, 54, n. 40 (1855); *Schleg. Mus. P.-B.* Columbæ, p. 4 (1873); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 8 (1873); *Gieb. Thes. Orn.* iii. p. 368 (1877); *Salv. Cat. B. Strickl. Coll.* p. 555 (1882); *Salvad. Orn. Pap. e Mol.* iii. p. 63 (1882); *Sharpe, Voy. 'Alert,'* p. 25 (part.) (1884).

Kurukuru swainsoni, *Des Murs & Prév. Voy. Vénus, Zool.* pp. 256, 269 (part.) (1855?).

Ptilopus regina, *Elliot, P. Z. S.* 1878, p. 531; *Tristr. Cat. Coll. B.* p. 45 (1882); *Heine & Rchnw. Nomencl. Mus. Hein. Orn.* p. 280 (1890).

Adult. Green; forehead and crown rose-lilac, surrounded, except in front, with a narrow ring of yellow; back of the neck greyish green; upper surface green tinged with yellow, the green on the wings more brilliant, having a glossy appearance; scapulars and tertials deep blue towards the tips and broadly edged with golden green; quills with narrow yellow edges, broader on the inner secondaries; chin and upper throat pale yellow; lower throat and breast dull green, each feather forked at the end, which is silvery grey; a lilac transverse band between the breast and the abdomen; abdomen orange, sides, flanks, and thighs green; vent yellow; under tail-coverts yellow, stained with orange; under wing-coverts greenish grey, with yellowish edges; quills underneath grey; tail above green, below grey and with a yellow band at the tip: "irides reddish orange: bill greenish black and horn-colour at tip; feet olive-brown" (*Gould*). Total length 8·5 inches, wing 5·25, tail 3, bill 0·48, tarsus 0·84.

Female. Smaller; of a brighter green above and on the breast, and with the yellow under tail-coverts less stained with orange.

Young. Bronze-green above, with the feathers of the back, wings, and tail edged with yellow; a yellow line from the lores over the eyes; throat yellowish green; underparts green, with the edges of

the feathers yellow, broader on the abdomen; under tail-coverts yellow.

Immature birds have a few purple-red feathers scattered on the upper part of the head, and some orange tinge on the lower breast.

Hab. Eastern Australia, from Cape York to New South Wales, the islands in Torres Strait, and also S.E. New Guinea, where apparently it is a straggler.

a. Ad. sk.	Port Moresby, S.E. New Guinea (*A. Goldie*).	Salvin-Godman Coll.
b, *c*. ♂ ad. et ♀ juv. sk.	Booby Is., Torres Straits, Aug. (*Dr. Coppinger*).	'Alert' Expedition.
d. ♂ imm. sk.	Prince of Wales Is., Aug. (*Dr. Coppinger*).	'Alert' Expedition.
e. Pull. sk.	Thursday Is., July (*Dr. Coppinger*).	'Alert' Expedition.
f. ♂ ad. sk.	Howicks Group, August (*Capt. Stanley*).	Voyage of H.M.S. 'Rattlesnake.'
g, *h*, *i*, ♂ ♀ ad. et ♀ juv. sk.	Moreton Bay (*F. Strange*).	Gould Coll.
k. ♂ juv. sk.	Pine River, Nov.	Gould Coll.
l. Ad. sk.	Cape York.	Gould Coll.
m. ♂ ad. sk.	Cape York, Oct. (*Capt. Stanley*).	Voyage of H.M.S. 'Rattlesnake.'
n, *o*. Ad. sk.	Somerset, Cape York (*J. T. Cockerell*).	Tweeddale Coll.
p. Ad. sk.	Somerset, Cape York (*J. T. Cockerell*).	Salvin-Godman Coll.
q. Ad. sk.	N. Australia (*J. T. Cockerell*).	Salvin-Godman Coll.
r. Juv. sk.	N. Australia.	J. T. Cockerell [C.].
s, *t*. Ad. sk.	Port Albany.	Purchased.
u. Ad. sk.	Port Albany (*C. Coxen*).	Tweeddale Coll.
v, *w*, *x*. Ad. sk.	Queensland (*J. T. Cockerell*).	Salvin-Godman Coll.
y. Ad. sk.	Queensland.	H. Seebohm, Esq. [P.].
z, *a'*. ♂ ad. et juv. sk.	Port Molle, Queensland, May (*Dr. Coppinger*).	'Alert' Expedition.
b'. Ad. st.	N. S. Wales.	Purchased.
c', *d'*. Ad. st.	N. S. Wales.	Rev. A. Strong [P.].
e', *f'*. Ad. sk.	[Pelew Is.]	— Cohen [C.].

21. **Ptilopus ewingi.**

Ptilinopus ewingi, *Gould, P. Z. S.* 1842, p. 19 (Port Essington); *id. B. Austr.* v. pl. 56 (pt. vii. 1842); *Rchnb. Vög. Neuholl.* p. 318, n. 417 (1850); *Gould, Handb. B. Austr.* ii. p. 107 (1865); *G. R. Gr. Hand-list*, ii. p. 224, n. 9117 (1870); *Rams. Pr. Linn. Soc. N. S. W.* ii. p. 195, n. 514 (1878); *Masters, Pr. Linn. Soc. N. S. W.* ii. p. 274 (1878) (Port Darwin); *Rams. Tab. List*, p. 17, n. 528 (1888).

Ptilonopus ewingi, *G. R. Gr. Gen. B.* ii. p. 466, n. 5 (1844); *id. List B. Brit. Mus.* Columbæ, p. 3 (1856); *Rchnb. Tauben*, p. 94, t. 235. ff. 1507–8 (1862).

Kurukuru, part., *Less. Compl. de Buff.* viii. p. 33 (1837); *id.* 2nd ed. p. 277 (part.) (1838).

Kurukuru roseicapillus, part., *Des Murs & Prév. Voy. Vénus, Ois.* p. 262 (1855?).

Ptilopus ewingi, *Bp. Consp. Av.* ii. p. 20 (1854); *id. Compt. Rend.* xxxix. p. 877 (1854), xl. p. 216, n. 41 (1855); *id. Coup d'œil Ordr. Pig.* pp. 8, 54, n. 41 (1855); *id. Icon. Pig.* pl. 24. f. 1 (1857); *Schleg. Mus. P.-B.* Columbæ, p. 5 (part.) (1873); *Gieb. Thes. Orn.* iii. p. 363 (1877).

Ptilopus swainsoni, *Elsey* (*nec Gould*), *P. Z. S.* 1857, p. 27 (Quail Island, near Port Paterson).

Adult male. Green; forehead and crown rose-purple, margined behind with yellow; sides of head greyish green; upper parts green, with a yellowish tinge, the green of the wing with a glossy appearance; scapulars and tertials deep blue towards the tips, and broadly edged with golden green; quills with narrow yellow edges; throat yellow; crop-feathers green, tipped with grey; breast-feathers green, tipped with yellow; abdomen orange, with a pale rose-lilac band across the upper part; flanks and thighs green; vent yellow; under tail-coverts orange-yellow; under wing-coverts grey, edged with yellowish green; quills underneath grey; tail green above, grey underneath, with a broad terminal yellowish-white band: "irides orange; feet olive" (*Gould*), "or brownish; bill black, with yellow tip" (*Elliot*). Total length 8 inches, wing 4·6, tail 2·8, bill 0·55, tarsus 0·6.

Hab. Northern Australia from Port Essington to Cape York (*Ramsay*).

a, b, c. Ad. st.	Port Essington.	Capt. W. Chambers [P.].
d. Ad. sk.	Port Essington.	Gould Coll.
e, f. ♂ ♀ ad. sk.	Quail Isl., N.W. Australia.	J. R. Elsey, Esq. [P.].

22. Ptilopus flavicollis.

Columba purpurata, *Temm. & Knip* (*nec Gm.*), *Pig.* i. pl. 34 (bad) (1808–11) (Timor *fide* Bonaparte).

Columba purpurata, part., *Temm. Pig. et Gall.* i. p. 283 (1813) (Timor); *Less.* (*nec Gm.*) *Tr. d'Orn.* p. 472 (1831) (Timor).

Ptilonopus purpuratus, *Selby, Nat. Libr., Pigeons*, p. 103 (part.) pl. 3 (*ex Knip & Temminck*) (1835) (Timor); *Rchnb. Syn. Av.* f. 1305 (1847) (*ex Selby*).

Ptilonopus flavicollis, *G. R. Gr. MS.* (1854); *Finsch & Hartl. Orn. Centralpolyn.* p. 125 (1867); *G. R. Gr. Hand-list*, ii. p. 225, n. 9125 (1877).

Ptilopus flavicollis, *Bp. Consp. Av.* ii. p. 20 (1854) (Timor); *id. Compt. Rend.* xxxix. p. 877 (1854), xl. p. 216, n. 42 (1855); *id. Coup d'œil Ordr. Pig.* pp. 8, 54, n. 42 (1855); *id. Icon. Pig.* pl. 20 *a* (25 in the Index) (1857); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 8 (1873); *Gieb. Thes. Orn.* iii. p. 364 (1877).

Ptilonopus flavocollis, *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 3 (1856) (Timor).

Ptilonopus flavipectus, *Rchnb. Tauben*, p. 94, t. 235. f. 1305 (*ex Selby*) (1862).

Ptilonopus flavicollis, *Rchnb. Tauben*, p. 95 (1862); *Wall. P. Z. S.* 1863, p. 486; *id. Ibis*, 1865, p. 380; *id. J. f. O.* 1866, p. 279.

Ptilonopus flavipectus, *Finsch & Hartl. Orn. Centralpolyn.* p. 125 (1867); *G. R. Gr. Hand-list*, ii. p. 225, n. 9130 (1870); *Gieb. Thes. Orn.* iii. p. 364 (1877).

Ptilopus ewingi, part., *Schleg. Mus. P.-B.* Columbæ, p. 5 (1873) (Timor, Flores); *Elliot, P. Z. S.* 1878, p. 533 (partim); *Meyer, Verh. z.-b. Ges. Wien*, 1881, p. 708 (Timor).

Ptilinopus fasciatus, part., *G. R. Gr. Hand-list*, ii. p. 225, n. 9122 (1870).

Similar to *P. ewingi*, from which it is doubtfully distinct; the only difference appears to be the slightly yellower tinge of the anterior part of the neck and crop-region: "bill olive-green; orbits bare, greenish olive; iris reddish orange; feet pale olive; claws dusky" (*Wallace*). Total length about 8 inches, wing 4·5, tail 2·7, bill 0·5, tarsus 0·7.

Hab. Timor and Flores.

a. Ad. st.	Timor.	Leyden Museum. (Type of species.)
b. Ad. sk.	Timor.	Wallace Coll.
c. Ad. sk.	Timor.	Salvin-Godman Coll.
d, e. ♂ ad. et ad. sk.	Semao, Timor.	Wallace Coll.

23. Ptilopus fasciatus.

Ptilinopus fasciatus, *Peale, U.S. Expl. Exp.* p. 193, pl 53 (1848) (Samoa Isl.); *Hartl. Wiegm. Arch. f. Naturg.* 1852, pp. 115, 134; *Cass. U.S. Expl. Exp.* p. 271, pl. 31 (1858); *Rchnb. Tauben*, ii. p. 177, *Suppl.* t. 4. ff. 34, 35 (1862); *Hartl. & Finsch, Orn. Centralpol.* p. 115 (part.), t. 2. f. 3 (egg) (1867); *Finsch, J. f. O.* 1872, pp. 32, 45; *Gräffe, Journ. Mus. Godeffr.* Heft i. p. 49, t. 7. f. 2 (1873); *Nehrk. J. f. O.* 1879, p. 407.

Kurukuru clementinæ, *Des Murs et Prév. Voy. Vénus, Ois.* p. 264 (1855?).

Ptilopus clementinæ, part., *Bp. Consp. Av.* ii. p. 22 (1854); *id. Icon. Pig.* pl. xxii. f. 1 (Samoa), pl. xxiv. f. 2, juv. (1857).

Ptilopus apicalis, *Bp. Consp. Av.* ii. p. 23 (1854) (Vavao (?), Samoa); *id. Compt. Rend.* xxix. p. 876 (1854), xl. p. 216, n. 43 (1855); *id. Coup d'œil Ordr. Pig.* pp. 9, 54, n. 43 (1855); *Gieb. Thes. Orn.* iii. p. 362 (1877); *Elliot, P. Z. S.* 1878, p. 527; *Tristr. Cat. Coll. B.* p. 43 (1889).

Lamprotreron apicalis, *Bp. Compt. Rend.* xxxix. p. 877 (1854).

Ptilonopus fasciatus, *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 4 (1856); *id. Cat. B. Trop. Isl.* p. 37 (1859); *id. Hand-l.* ii. p. 225, n. 9122 (part.) (1870); *Whitm. P. Z. S.* 1873, p. 152; *id. Ibis*, 1875, p. 442; *Finsch, P. Z. S.* 1877, p. 783; *Rams. Pr. Linn. Soc. N. S. W.* ii. p. 140 (1878).

Ptilonopus clementinæ, *G. R. Gr. Cat. B. Trop. Isl.* p. 38 (part.) (1859); *Rchnb. Tauben*, i. p. 96 (part.), t. 240. f. 2588 (1862).

Ptilopus fasciatus, *Sclat. P. Z. S.* 1862, p. 325 (living specimen), 1863, p. 1; *Schleg. Mus. P.-B.* Columbæ, p. 6 (1873); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 8 (1873) (Samoa); *E. L. & E. L. C. Layard, Ibis*, 1878, p. 261; *Elliot, P. Z. S.* 1878, p. 535 (part.); *Sclat. List Vert. An.* 8th ed. p. 444 (1883); *Wiglesw. Ibis*, 1891, p. 578; *id. Aves Polynes.* p. 49, n. 258 (1891); *id. Ibis*, 1892, p. 345.

Ptilinopus apicalis, *Finsch & Hartl. Orn. Centralpol.* p. 121 (1867);

G. R. Gr. Hand-list, ii. p. 225, n. 9123 (1870); *Layard, P. Z. S.* 1877, p. 464.

Ptilinopus fasciatus, *Gräffe* (*nec Peale*), *Journ. Mus. Godeffr.* Heft i. p. 45, t. 7. f. 2 (1873).

Ptilonopus apicalis, *Layard, Ibis*, 1876, p. 506; *id. P. Z. S.* 1876, p. 495, 1877, p. 464; *id. Ibis*, 1878, p. 261.

Ptilopus pictiventris, *Elliot, Ann. & Mag. N. H.* (5) i. p. 349 (1878); *id. P. Z. S.* 1878, p. 530, pl. xxxiii. (Navigators' and Friendly Islands!); *E. L. Layard, P. Z. S.* 1879, p. 316; *Schmeltz, Verh. Ver. Hamb.* 1877 (1879), p. 178; *Tristr. Cat. Coll. B.* p. 44 (1889).

Adult male. Front and crown rosy purple or magenta, faintly margined posteriorly with yellow; throat yellowish white; occiput, neck, and breast greyish green; flanks green; a dark purple band separates the abdomen from the breast; middle of the abdomen tinged with rufous; lower abdomen and vent yellow; under tail-coverts yellow, tinged with orange, or even but very faintly with rosy, especially the longer ones; back, rump, and upper tail-coverts bronze-green; wings shining green, the quills with narrow yellow edges; inner secondaries or tertials with beautiful lilac spots towards the tip; tail above green, with a broad yellow band at the tip, beneath dark grey, with an apical light grey band tinged with yellow: "iris yellow-buff; bill green-grey: feet purple" (*E. L. Layard*). Total length 9 inches, wing 5·3, tail 3·2, bill 0·5, tarsus 0·85.

Female. Like the male, but the neck and breast, and especially the hind part of the former, greener.

Young. Almost entirely green; feathers of the back, underparts, and upper wing-coverts broadly edged with yellow; lower abdomen and under tail-coverts pure yellow.

"It is not difficult to follow the development of *P. fasciatus* in its different stages of growth. The *young bird* is at first (almost) entirely green, with yellow-tipped feathers below, yellow under tail-coverts, and a grey (sometimes pale yellowish) band at the end of the tail. The magenta feathers of the cap first begin to sprout at the forehead; soon afterwards the yellow-tipped feathers upon the breast are lost, the orange under tail-coverts and yellow cross-band of the tail are assumed, and the chestnut-red [rufous] of the abdomen begins to make its appearance, when the bird becomes *P. apicalis*, Bp. The remaining yellow-tipped feathers of the abdomen are now lost, and the purplish-black band separating abdomen and breast is produced, and the bird shows the plumage of *P. pictiventris*, Elliot. With the final acquisition of the deep magenta abdominal patch the full dress of the adult *P. fasciatus* is seen." (*Wiglesworth.*)

This species differs from the allied ones in having the band at the tip of the tail yellow, the middle of the abdomen tinged with rufous, and the spots near the tip of the tertials lilac.

Hab. All the Samoan Islands.

a. Ad. st.	Samoa.	Zool. Society's Coll.
b. Imm. sk.	Samoa.	Rev. J. B. Stair [P.].
c. Ad. sk.	Samoa.	Purchased.

d. Ad. sk.	Samoa.	Gould Coll.
e, f. Ad. sk.	Samoa.	Rev. J. Whitmee [P.].
g. Ad. sk.	Samoa.	J. Brenchley [P.].
h, i, k. ♀ ad. et ♂ ♀ imm. sk.	Apia, Samoa, Dec., Jan. (*E. L. Layard*).	Tweeddale Coll.
l. ♀ imm. sk.	Apia, Samoa, Dec. (*E. L. Layard*).	Salvin-Godman Coll.
m. ♂ ad. sk.	Upolu, Samoa, Dec. (*E. L. Layard*).	Tweeddale Coll.
n, o. ♂ ad. sk.	Savaii, July (*Rev. G. Brown*).	Salvin-Godman Coll.

24. Ptilopus porphyraceus.

Purple-crowned Pigeon, part., *Lath. Gen. Syn.* ii. 2, p. 623 (1783) (ex Tonga Tabou); *Bechst. Lath. Uebers.* ii. p. 607 (1794); *Lath. Gen. Hist.* viii. p. 64 (1822).

Co'umba purpurata, part., *Gm. S. N.* i. 2, p. 784, p. 64 (1788); *Lath. Ind. Orn.* ii. p. 598, n. 17 (part.) (1790); *Bechst. Lath. Uebers.* ii. p. 607 (part.) (1811); *Temm. Hist. Pig. et Gallin.* i. pp. 282, 283, 475 (prém. var. et var. ex Tonga Tabou) (1813); *Steph. Gen. Zool.* xi. p. 66 (part.) (1819); *Desm. Dict. Sc. Nat.* xl. p. 330 (1826); *Wagl. Syst. Av.* Columbæ, i. sp. 30 (part.) (1827); *id. Isis*, 1829, p. 742 (ex Tonga Tabu).

Colomba kurukuru, var., *Temm. & Knip, Pig.* i. pl. 35 (1808–11).

Columba purpurata, var., *Temm. & Knip, Pig.* i. fam. sec. p. 78, pl. 35 * (1808–11); *Temm. Hist. Pig. et Gallin.* i. pp. 283, 475 (1813).

Columba porphyracea, part., *Forst. MS.*; *Temm. Tr. Linn. Soc.* xiii. p. 130 (1821) (*ex Pig.* pl. 35); *Wagl. Isis*, 1829, p. 742 (part.).

Tabuan Pigeon, *Lath. Gen. Hist.* viii. p. 77 (1822); *G. R. Gr. Cat. B. Trop. Isl.* p. 38 (1859).

Columba tabuensis, *Lath. MS.* fide *G. R. Gr. Cat. B. Trop. Isl.* p. 38 (1859).

Columba viridissima, *Temm. Pl. Col. in the text of* C. diademata, p. 2 (livr. 95, 1824) (*ex Pl. Col.* 35 *).

Columba forsteri, *Desm. Dict. Sc. Nat.* xl. p. 340 (1826); *Less. Compl. de Buff., Ois.* ii. p. 34 (1837) (ex Tonga Tabou); *id. op. cit.* 2nd ed. p. 278 (1838).

Columba porphyrea, part., *Wagl. Syst. Av.* Columba, sp. 31 (1827).

Ptilonopus purpuratus, *Selb. Nat. Libr., Pigeons*, p. 103 (text, but not plate) (1835).

Ptilinope de Clémentine, *Hombr. & Jacq. Voy. Pôle Sud, Atlas*, pl. 29. f. 3 (1841).

Columba porphyracra (*errore*), *Forst. Descr. An.* p. 167 (part.) (1844) (ex Tonga Tabu).

Ptilonopus porphyreus, *G. R. Gr. Gen. B.* ii. p. 466, n. 2 (1844).

Ptilonopus viridissimus, *G. R. Gr. Gen. B.* ii. p. 266, n. 3 (1844); *id. Cat. B. Trop. Isl.* p. 38 (1859); *Rchnb. Tauben*, i. p. 95 (1862).

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* Temminck by mistake quotes pl. 34, instead of 35, as belonging to *C. viridissima*. The bird marked as type of the latter in the Museum of Paris is the same as *Ptilopus pictiventris*, Elliot, but I have no doubt that it is not the real type, as Temminck's plate agrees very well with Tonga and Fiji birds (*P. porphyraceus*), and not with Samoan *P. fasciatus* (=*pictiventris*).

Ptilonopus (de Clementine), *G. R. Gr. Gen. B.* App. p. 23 (1849).
Ptilinopus purpuratus, *Hartl.* (*nec Gm.*) *Archiv f. Natury.* 1852, p. 134 (Tonga group).
Ptinilopus (*sic*) clementinæ, *Jacq. & Pucher. Voy. Pôle Sud, Zool.* iii. p. 117 (1853).
Ptilinopus clementinæ, *Hartl. J. f. O.* 1854, p. 169.
Ptilopus viridissimus, *Bp. Consp. Av.* ii. p. 20 (1854); *id. Compt. Rend.* xxxix. p. 877 (1854), xl. p. 217, n. 44 (1855); *id. Coup d'œil Ordre Pig.* pp. 8, 55, n. 44 (1855).
Ptilopus porphyraceus, *Bp. Consp. Av.* ii. p. 21 (1854); *id. Compt. Rend.* xl. p. 216, n. 45 (1855); *id. Coup d'œil Ordre Pig.* p. 54, n. 45 (1855); *Schley. Mus. P.-B.* Columbæ, p. 8 (1873) (Tonga); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 8 (1873); *Gieb. Thes. Orn.* iii. p. 367 (1877); *Finsch, Voy. Chall., Birds*, pp. 38, 58 (1881); *Wiglesw. Ibis*, 1891, p. 574; *id. Aves Polynes.* p. 50, n. 259 (1891).
Ptilopus clementinæ, part., *Bp. Consp. Av.* ii. p. 22 (1854); *id. Compt. Rend.* xxxix. p. 877 (1854), xl. p. 216, n. 48 (1855); *id. Coup d'œil Ordre Pig.* pp. 9, 54, n. 48 (1855); *Wiglesw. Ibis*, 1891, p. 579, pl. xi.
Ptilonopus porphyraceus, *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 3 (1856); *Rchnb. Tauben*, p. 95 (1862); *Layard, P. Z. S.* 1876, p. 502 (Tongatabu and Futuna Isl.).
Ptilopus purpuratus, *Bp.* (*nec Gm.*) *Icon. Pig.* pl. xix. f. *a* (ad.), f. *b* (juv. ?) (1857); *Elliot, P. Z. S.* 1878, p. 525 (Tonga and Savage Islands): *Schmeltz, Verh. Ver. Hamb.* 1877 (1879), p. 177; *Tristr. Cat. Coll. B.* p. 44 (part.) (1889) (Tongatabu).
Ptilonopus porphyracrus, *G. R. Gr. Cat. B. Trop. Isl.* p. 38 (1859).
Ptilonopus viridissimus, *G. R. Gr. l. c.* p. 38 (1859).
Ptilonopus clementinæ, *G. R. Gr. l. c.* p. 38 (1859); *Rchnb. Tauben*, p. 96, pl. 240. f. 2588 (1862).
Ptilinopus porphyreus, *Rchnb. Tauben*, t. 144 *b*. f. 3367 (*nec descr. s. n.* P. viridissimi, p. 95) (1862).
Ptilinopus fasciatus, part., *Finsch & Hartl. Orn. Centralpolyn.* p. 115 (1867); *iid. J. f. O.* 1870, p. 133; *Finsch, P. Z. S.* 1874, p. 94 (part.); *E. L. Layard, P. Z. S.* 1875, p. 436, 1876, pp. 495, 502; *id. Ibis*, 1876, pp. 392, 506; *id. P. Z. S.* 1877, p. 464; *Schmeltz, Verh. Ver. Hamb.* 1877 (1879), p. 178.
Ptilinopus porphyraceus, *Finsch & Hartl. Orn. Centralpolyn.* p. 119 (1867); *iid. P. Z. S.* 1869, p. 547; *G. R. Gr. Hand-list*, ii. p. 224, n. 9118 (1870); *Finsch, P. Z. S.* 1877, pp. 725 (Tongatabu), 775 (Eua, Tonga), 783 (Niuafou, Tonga).
Ptilinopus forsteri, *Finsch & Hartl. Orn. Centralpolyn.* p. 132 (1862).
Ptilinopus viridissimus, *Finsch & Hartl. Orn. Centralpolyn.* p. 133 (1867); *G. R. Gr. Hand-list*, ii. p. 285, n. 3128 (1870).
Ptilopus bonapartei, *G. R. Gr. Hand-list*, ii. p. 225, n. 9126 (1870) (*ex Bp. Icon. Pig.* pl. xix. f. *a*); *Elliot, P. Z. S.* 1878, p. 524.
Ptilinopus porphyracrus, *Finsch & Hartl. J. f. O.* 1870, p. 131 (Tongatabu).
Ptilopus fasciatus, *Layard* (*nec Peale*), *P. Z. S.* 1876, p. 495 (Fiji Isl.); *id. Ibis*, 1876, p. 392 (Fiji Isl.).
Ptilopus porphyracrus ?, *Tristr. Ibis*, 1870, p. 261.
Ptilonopus porphyraceus, var., *Rams. Pr. Linn. Soc. N. S. W.* i. p. 140 (1878).
Ptilonopus whitmeei, *Rams. l. c.* p. 141 (1878) (Savage Isl.).

Ptilopus rarotongensis, part., *Elliot*, *P. Z. S.* 1878, p. 534 (Savage Isl.).
Ptilonopus porphyraceus clementinæ, *Wiglesw. Aves Polynes.* p. 50, n. 260 (1891).

Adult male. Front and crown rosy purple, faintly margined posteriorly with yellow; throat yellowish white; occiput, neck, and breast greyish green; abdomen and flanks green; a dark green spot, occasionally tinged with dark purple, separates the breast from the abdomen; vent and under tail-coverts pure yellow, or more or less tinged with orange; back, rump, and upper tail-coverts bronze-green; wings shining green, the quills with narrow yellow edges; inner secondaries or tertials with lilac spots towards the tip; tail above green with a subapical greyish-white band, tinged with green and on the edges with yellow, beneath dark grey with a broad apical light grey band: "iris yellow; bill green-grey; feet magenta" (*E. L. Layard*). Total length 9 inches, wing 5·4, tail 3·2, bill 0·5, tarsus 0·85.

Female. Similar to the male, and (if constant) with the abdominal dark green spot without purple tinge.

Hab. Tonga Islands—Tongatabu, Eua, Lifuka, Hapai, Vavau, Niuafou, Futuna Island; Savage Island and Fiji Islands—Balaou, Wakaia, Mokani, Loma-loma, Mango, and Taviuni.

This species is easily distinguished from the Samoan *P. fasciatus* by the grey instead of yellow apical tail-band, by the abdomen being green with no rufous-brown tinge, by the purple tinge of the dark green abdominal spot being absent or very faintly shown, and by the lilac spots near the tips of the tertials being darker and more bluish.

I do not think it possible to separate Fiji from Tonga specimens: the band at the tip of the tail is grey in birds from both localities; a purple tinge on the dark green band separating breast and abdomen is occasionally found in specimens from both localities; also the yellow under tail-coverts are often tinged with orange in both; and, lastly, the spots at the tips of the tertials and scapulars are also the same.

a, *b*. ♂ ad. sk.	Tongatabu.	'Challenger' Exp.
c. Ad. sk.	Tongatabu (*A. Dietrich*).	Salvin-Godman Coll.
d. ♂ ad. sk.	Tongatabu, Feb. (*E. L. Layard*).	Tweeddale Coll.
e, *f*, *g*. Ad. et imm. sk.	Tongatabu.	J. Brenchley, Esq. [P.].
h. Ad. sk.	Friendly Isl.	E. Wilson, Esq. [P.].
i. Ad. sk.	Friendly Isl.	Zoological Society's Coll.
k. Imm. sk.	Friendly Isl.	Gould Coll.
l. Ad. sk.	Vavau, Friendly Isl., July.	J. Brenchley, Esq. [P.].
m. ♂ ad. sk.	Vavau, Friendly Isl., Feb. (*E. L. Layard*).	Tweeddale Coll.
n, *o*, *p*. Ad. sk.	Savage Isl.	J. Brenchley, Esq. [P.].

q. Ad. sk.	Savage Isl.	Rev. J. Whitmee [P.].
r-*w*. ♂ ad. sk.	Wakaia, Fiji Isl., Sept., Dec. (*E. L. Layard*).	Tweeddale Coll.
x. ♀ ad. sk.	Wakaia, Dec. (*E. L. Layard*).	Salvin-Godman Coll.
y. ♀ ad. sk.	Ovalau, Fiji Isl.	F. M. Rayner, Esq. [P.].
z, *a'*. ♂ ad. et ♀ juv. sk.	Mango, Fiji Isl., Dec. (*E. L. Layard*).	Tweeddale Coll.
b', *c'*. ♂ ad. sk.	Taviuni, Fiji Isl. (*Liardet*).	Salvin-Godman Coll.

25. Ptilopus rarotongensis.

Ptilinopus rarotongensis, *Hartl. & Finsch, P. Z. S.* 1871, p. 30 (Rarotonga); *Gräffe, Journ. Mus. Godeffr.* Heft i. p. 49, t. 2. f. 1 (1873).

Ptilonopus rarotongensis, *Finsch, P. Z. S.* 1874, p. 94; *Garrett, Ethnogr. Abtheil. Mus. Godeffr.* p. 224 (1881).

Ptilopus chrysogaster (part.), *Gieb. Thes. Orn.* iii. p. 362 (1877).

Ptilopus rarotongensis, *Elliot, P. Z. S.* 1878, p. 534 (part.); *Schmeltz, Verh. Ver. Hamb.* 1877 (1879), p. 178; *Wiglesw. Ibis*, 1891, p. 574; *id. Aves Polynes.* p. 49, n. 256 (1891).

? Ptilopus neglectus, *Schleg. Mus. P.-B.* Columbæ, p. 7 (1873) (Viti?); *Gieb. Thes. Orn.* iii. p. 366 (1877); *Elliot, P. Z. S.* 1878, p. 524; *Büttik. in Wiglesw. Ibis*, 1891, p. 574 (note).

Adult. "Front and vertex purplish violet-red, surrounded by a narrow indistinct line of yellow; occiput, sides of head, neck, crop, and upper part of breast delicate grey, the feathers of the latter bifurcated and with pale yellow cross band; chin and middle of throat white, washed with pale yellow; breast and remainder of underparts yellow, purer on the vent and under tail-coverts, paler on the anal region; the sides washed with pale greyish green, the same as the feathered tarsus; on the middle of the lower portion of the breast a large spot of dark purplish red; back and upper parts vivid grass-green; primaries and their coverts on the outer web and end brilliant dark green, with a very narrow but distinct white margin, the inner web black; secondaries also dark green, but with a somewhat broader yellow margin along the outer web; coverts of the secondaries dark green, narrowly margined externally and at the end with yellow; larger shoulder-coverts brilliant dark green, broadly margined at the end with grass-green; wing beneath ashy grey; under wing-coverts delicate grey like the neck; tail dark green with a broad greyish-white end; the feathers, except the two middle ones, are on the inner web dark grey, crossed above the white end by a blackish cross band; the white end is margined narrowly with pale yellow; tail beneath dark grey, at the end broadly white: bill plumbeous, tipped with pale horn-colour; feet reddish brown; nails dark: 'irides yellow; bill brownish yellow; legs purple-red' (*Garrett*). Total length 8 inches, wing 5, tail 3·1, bill 0·52, tarsus 0·11½ (!)." (*Hartlaub & Finsch.*)

Young. "Vertex and hind neck green, like the back; front and forehead covered with a pale violet-purple patch; sides of head and neck grey washed with green, the crop and upper portion of breast with greenish yellow; the underparts are of a less brilliant yellow; the sides darker greyish green; the red pectoral patch is indicated only by some dirty purplish feathers; the pale yellow margins at the ends of the coverts of the secondaries are broader and form a distinct cross line; the white end-portion of the tail-feathers is washed at the outer web and apex with green: bill and feet brown. Total length 8 inches, wing 4·7, tail 2·8, bill 0·5, tarsus 0·11 (!)." (*Hartl. & Finsch.*)

Hab. Rarotonga, Cook's or Hervey Islands.

26. Ptilopus coralensis.

Ptilinopus coralensis, *Peale, U.S. Expl. Exped.* p. 190, pl. 51 (1848); *Hartl. Arch. f. Naturg.* 1852, i. pp. 114, 135; *id. J. f. O.* 1854, p. 170; *Cass. U.S. Expl. Exped.* 2nd ed. p. 272 (part.), pl. 32 (1858); *Hartl. & Finsch, Orn. Centralpol.* p. 130 (1867).

Kurutreron coralensis, *Bp. Consp. Av.* ii. p. 26 (1854); *id. Compt. Rend.* xxxix. p. 878 (1854), xl. p. 217, n. 60 (1855); *id. Coup d'œil Ordr. Pig.* pp. 10, 55, n. 60 (1855); *Rchnb. Tauben*, p. 93 (1862), ii. p. 177, t. 3. f. 33 (*ex Peale*) (1862); *G. R. Gr. Hand-list*, ii. p. 225, n. 9134 (1870).

Kurutreron chrysogaster, *Bp.* (*nec Gray*?) *Compt. Rend.* xliii. p. 834 (1856) (Iles Marquises (!), *Mus. Lugd.*).

Ptilonopus coralensis, *G. R. Gr. List B. Trop. Isl.* p. 37 (1859); *Sclat. P. Z. S.* 1864, p. 9.

Ptilonopus chalcurus, *G. R. Gr. List B. Trop. Isl.* p. 37 (1859) (Cook's Islands) (?); *Finsch, P. Z. S.* 1874, p. 94.

Ptilinopus chalcurus, *Finsch & Hartl. Orn. Centralpol.* p. 131 (1867); *iid. P. Z. S.* 1871, p. 31.

Kurutreron chalcurus, *G. R. Gr. Hand-list*, ii. p. 225, n. 9133 (1870).

? Ptilopus coralensis, *Schleg. Mus. P.-B.* Columbæ, p. 14 (part.) (1873) (Iles Marquises!); *Gieb. Thes. Orn.* iii. p. 363 (1877); *Elliot, P. Z. S.* 1878, p. 528; *Wiglesw. Ibis*, 1891, p. 573; *id. Aves Polynes.* p. 49, n. 254 (1891).

Ptilopus chalcurus, *Gieb. Thes. Orn.* iii. p. 362 (1877); *Elliot, P. Z. S.* 1878, p. 529; *Wiglesw. Ibis*, 1891, p. 574; *id. Aves Polynes.* p. 49, n. 255 (1891).

Type of *P. chalcurus*. Crown and forehead purple-violet, separated from the base of the culmen by a few greenish feathers; occiput and nape greyish green; back and wings bronze-green; throat pale; sides of the head, neck, and breast greenish grey; abdomen dull olive-green; vent and under tail-coverts pale yellow; quills with yellowish narrow edges, narrower on the primaries; first primary scarcely narrowed at the tip; under surface of the wings grey; tail above bronze-green, nearly coppery, with an obsolete greyish band at the tip of the lateral feathers; tail below grey, with a lighter terminal band: bill, legs, and feet yellowish in the skin. Total length about 9 inches, wing 5·6, tail 3·8, bill 0·55, tarsus 0·9.

Hab. Island of Carlsoff, Paumotu Group.

a. Ad. sk.	[Hervey or Cook's Islands.]	Zool. Soc. [P.]. (Type of *P. chalcurus* *.)

27. Ptilopus smithsonianus.

Ptilinopus coralensis, part., *Cass. U.S. Expl. Exp.* 2nd ed. p. 272 (1848).

(Supposed type of *P. coralensis*.) Head and neck dull greenish, changing into olive bronze-green on the upper parts and into pale olive-green on the breast; crown dull purple-violet, forehead greenish grey; quills and greater wing-coverts bronze-green, with a coppery tinge, and edged with yellowish; under surface of the wings dull grey; first primary very narrow at the tip; middle of the abdomen, vent, and under tail-coverts pale yellow; tail above bronze-green with a coppery tinge, and with an apical greyish band tinged with green on the edges of the outer webs; there is an indistinct subapical dark band, and the inner webs are grey; under surface of the tail pale grey, with a darker subapical band and a lighter apical one. Total length about 8·5 inches, wing 5·5, tail 3·8, bill 0·5, tarsus 0·8.

Hab. Some Island of the Paumotu Group†.

28. Ptilopus purpuratus.

Purple-crowned Pigeon, *Lath. Gen. Syn.* ii. 2, p. 626, n. 15 (1783) (Otaheiti).

Columba purpurata, *Gm. S. N.* i. 2, p. 784, n. 64 (1788) (*ex Latham*); *Lath. Ind. Orn.* ii. p. 598, n. 17 (1790); *Bechst. Lath. Uebers.* ii. p. 607 (1794), iv. p. 379 (1811); *Temm. Hist. Pig. et Gallin.* i. p. 280 (part.) (1813).

Columba kurukuru, *Bonn. Enc. Méth.* (prém. éd.) p. 240 (part.) (1790).

Columba kurukuru, var. taitensis, *Less. Voy. Coq.* i. p. 297 (1826).

Columba porphyracea (part.), *Forst. MS.* (var. ex Otaheite); *Wagl. Isis*, 1829, p. 743.

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* I have very little doubt that the bird described as *P. chalcurus* is the same as *P. coralensis*, Peale; the specimen mentioned above agrees very well with the figure of the latter in the United States Exploring Expedition (*l. c.*), only in that the purple on the crown does not extend to the hind part of the forehead. If my surmise is right, the locality assigned to the bird in the British Museum must be wrong. Mr. Wiglesworth ('Ibis,' *l. c.*) rightly notices that "it is strange that Garrett, who spent six months collecting in Rarotonga, Atiu, and Aitutaki, never obtained examples of this species." It would seem less strange if the locality assigned to the type of *P. chalcurus* were wrong.

† Thanks to the authorities of the Smithsonian Institution, I have been able to examine the bird which is considered to be the type of *P. coralensis*, Peale, and which is so very different from Peale's plate that I cannot help thinking that the latter (which was drawn by Peale himself) was taken from another bird resembling the type of *P. chalcurus*, and that the bird preserved as the type of *P. coralensis* belongs to a different species. Cassin supposed that it might be an immature specimen; but I think that this surmise is not correct, as the bird has the first primary much attenuated at the tip, more so even than in the type of *P. chalcurus*, which I take to be the same as *P. coralensis*.

Columba oopa, *Wagl. Isis*, 1829, p. 742 (*ex Forster*).
Columba taitensis, *Less. Tr. d'Orn.* p. 472 (1831).
Le Kurukuru d'Otaiti, *Less. Compl. de Buff.* viii. *Ois.* p. 35 (1837); *id.* 2nd ed. p. 278 (1838).
Ptilinopus taitensis, *Less. ibid.*; *Hartl. J. f. O.* 1854, p. 160.
? Colombe de Taïti, *Neboux, Rev. Zool.* 1840, p. 289.
Columba porphyracea (*sic*), *Forst. Descr. An.* p. 167 (part., specim. ex Otaheitæ) (1844).
Ptilonopus taitensis, *G. R. Gr. Gen. B.* ii. p. 466, n. 9 (1844); *Hartl. Archiv f. Naturg.* 1852, 1, p. 134.
Ptilinopus furcatus, *Peale, U.S. Expl. Exp. Birds*, p. 191, pl. 52 (1848); *Hartl. Archiv f. Naturg.* 1852, 1, pp. 114, 134; *id. J. f. O.* 1854, p. 169.
Kurukuru dupetit-thouarsi, *Des Murs & Prév.* (*nec Neboux*), *Voy. Vénus*, pl. vii. (1855 ?).
? Kurukuru purpuratus, *Des Murs & Prév. Voy. Vénus, Zool.* p. 222 (1855 ?).
Kurukuru taitensis, *Des Murs & Prév. Voy. Vénus, Zool.* p. 251 (1855 ?).
Kurukuru nebouxii, *Des Murs & Prév. Voy. Vénus, Zool.* p. 253, pl. vii. (1855 ?).
Kurutreron oopa, *Bp. Consp. Av.* ii. p. 26 (1854); *id. Compt. Rend.* xxxix. p. 878 (1854), xl. p. 217, n. 58 (1855); *id. Coup d'œil Ordr. Pig.* pp. 10, 55, n. 58 (1855); *id. Icon. Pig.* text pl. xxix. *f.* 1 (1857); *Rchnb. Taub.* p. 92, t. 245 *b.* ff. 3527–28 (1862), ii. p. 176 (1862); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 9 (1873).
Ptilonopus purpuratus, *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 4 (1856); *id. B. Trop. Isl.* p. 35 (part.) (1859); *Finsch, P. Z. S.* 1877, p. 741.
Ptilinopus purpuratus, *Cass. U.S. Expl. Exp. Birds*, p. 269, pl. 30 (1858); *Rchnb. Taub.* ii. p. 177 (part.), t. iv. ff. 36–37 (*ex Cassin*, pl. 30) (1862); *Finsch & Hartl. Orn. Centralpolyn.* p. 122 (1867).
Ptilonopus oopa, *Pelz. Novara Reis., Vög.* p. 104 (1865) (Tahiti).
Kurutreron purpuratus, *G. R. Gr. Hand-list*, ii. p. 225, n. 9131 (1820).
Ptilopus purpuratus, *Schleg. Mus. P.-B.* Columbæ, p. 15 (1873); *Gieb. Thes. Orn.* iii. p. 367 (1877); *Finsch, Voy. Chall., Birds*, p. 57 (1881); *Wiglesw. Ibis*, 1891, p. 571; *id. Aves Polynes.* p. 48, n. 252 (1891).
Ptilopus taitensis, *Elliot, P. Z. S.* 1878, p. 541.
Curotreron taitensis, *Heine & Rchnw. Nomencl. Mus. Hein. Orn.* p. 280 (1890).

Adult male. Front and crown lilac, not surrounded by a defined band; remainder of the head, neck, and under surface ashy grey, with only a very faint greenish tinge, especially on the middle of the breast and vent; throat-feathers bifid, with a concealed tinge of greenish; lower vent whitish; under tail-feathers lemon-yellow; tarsal feathers grey; back, wing, and tail green, with a bronzy shine; quills dark green, with the inner webs slaty black; secondaries with the outer webs narrowly margined with yellow; under wing-coverts ashy grey, tinged with green; quills underneath dark grey lead-colour; tail above bright green, with grey spot near the tip of the inner web forming an interrupted band; tail underneath

ashy grey, with a lighter band above the end: "feet violet; eyes orange; bill green at the base, tip yellow" (*J. Moseley*). Total length about 9·5 inches, wing 5·8, tail 3·1, bill 0·48, tarsus 1·1.

Adult female. Like the male (*fide Moseley*), but three of the specimens mentioned below have the upper part of the head grey, with no lilac tinge; they are apparently fully adult, and I believe are females.

Hab. Tahiti, Society Islands.

a, *b*. ♂ ♀ ad. sk.	Tahiti.	'Challenger' Expedition [C.].
c. Ad. sk.	Tahiti.	Purchased.
d. Ad. sk.	Tahiti.	Purchased.
e. Ad. sk.	Society Is.	Zoological Society's Coll.

29. Ptilopus chrysogaster.

Ptilinopus taitensis, *Rchnb.* (*nec Less.*) *Syn. Av.* Columbariæ, *Novit.* t. 245 *b*. ff. 3525–26 (1851).

Ptilonopus chrysogaster, *G. R. Gr. P. Z. S.* 1853, p. 48, pl. 54; *id. Ann. & Mag. N. H.* (2) xv. p. 158 (1855); *id. List B. Brit. Mus.* Columbæ, p. 5 (1856) (Tonga tabou!); *id. List B. Trop. Isl.* p. 36 (1859); *Sclat. P. Z. S.* 1864, p. 9 (Huaheine, Society Islands); *Finsch, P. Z. S.* 1874, p. 94.

Kurutreron chrysogaster, *Bp. Consp. Av.* ii. p. 26 (1854); *id. Compt. Rend.* xxxix. p. 878 (1854), xl. p. 217, n. 59 (1855); *id. Coup d'œil Ordr. Pig.* pp. 10, 55, n. 59 (1855); *id. Icon. Pig.* pl. xxix. f. 2 (1857); *G. R. Gr. Hand-list*, iii. p. 225, n. 9132 (1870).

Kurutreron chrysogastra, *Rchnb. Tauben*, i. p. 92, t. 245 *b*. ff. 3525–26 (1862), ii. p. 176 (1862).

Ptilinopus chrysogaster, *Hartl. & Finsch, Orn. Centralpolyn.* p. 128 (1867); *Graeffe, Journ. Mus. Godeffr.* i. pp. 48, 60, t. 7. f. 4 (1873); *Schmeltz, Cat. Mus. Godeffr.* v. p. xvi (1874).

Ptilopus coralensis, *Schleg.* (*nec Peale*) *Mus. P.-B.* Columbæ, p. 14 (part.) (1873).

Ptilopus chrysogaster, *Gieb. Thes. Orn.* iii. p. 362 (1877) (syn. emend.); *Elliot, P. Z. S.* 1878, pp. 515, 541; *Schmeltz, Verh. Ver. Hamb.* 1877 (1879), p. 179; *Salvad. Orn. Pap. e Mol.* iii. p. 64 (1882); *Tristr. Cat. Coll. B.* p. 43 (1889); *Wiglesw. Ibis*, 1891, p. 570; *id. Aves Polynes.* p. 49, n. 253 (1891).

Adult. Front and crown lilac, margined posteriorly with dull greenish yellow; rest of head, neck, mantle, breast, and flanks greenish grey: throat pale yellow; feathers of the crop bifid, grey at the tip, and with a concealed middle part olive-greenish; lower breast and sides olive; middle of the abdomen and under tail-coverts yellow; back and wings bronzy grass-green; primaries black, the outer webs margined with dark green; secondaries bright green, margined with pale yellow; under wing-coverts grey, with slight greenish-yellow edges; quills below lead-grey; tail above dark bronze-green, with a broad terminal band of yellowish white edged with brighter yellow; tail below grey, with a broad whitish terminal band: bill black, tip yellow; feet brown (in dry skin?). Total length 9·5 inches, wing 5·75, tail 3·4, bill 0·6, tarsus 0·8.

Young. Head grey, with some pale purple-lilac feathers on the forehead and crown; occiput green; an indistinct greenish-yellow band edges posteriorly the crown and the occiput; neck and breast greenish grey; throat pale yellow; on the breast the yellowish-green base of the feathers shows through the grey tips; lower breast and abdomen olive-yellow; under tail-coverts yellow; back, rump, and upper tail-coverts bronze-green; wings shining green, the quills with narrow yellowish edges, the greater upper wing-coverts with broader yellow edges; tail above green, with the apical pale grey band much narrower than in the adult; tail beneath dark grey, with a pale grey apical band.

Hab. Society Islands—Huaheine and Raiatea.

a. Ad. ak.	[Tahiti.]	Purchased. (Type of species.)
b. Ad. ak.	[Tongatabu.]	Purchased.
c. Ad. ak.	Huaheine, Society Is.	J. H. Gurney, Esq. [C.].
d–g. Ad. ak.	Huaheine, Society Is.	Salvin-Godman Coll.*

30. Ptilopus roseicapillus.

Kurukuru, *Quoy & Gaim. Voy. 'Uranie,' Zool.* p. 84 (1824) (Iles Mariannes).

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* Ptilopus, sp.

Columba porphyracea, *Forst. MS.* (part.) (ex Ulietea); *Wagl. Isis*, 1820, pp. 742, 743 (var. ex Ulietea).
? Colombe de Taïti, *Neboux, Rev. Zool.* 1840, p. 289.
Columba porphyracea (part.), *Forst. Descr. An.* p. 167 (1844) (ex Ulietea).
Ptilonopus ——, *G. R. Gr. Cat. B. Trop. Isl.* p. 36 (1859) (Ulietea, Society Islands).

"Pileo magis rubente, rostro minus croceo; naribus vix rubris, iridibus croceis; crisso intensius flavo." (*Forster.*)

"Latham and Forster mention that in Raiatea (Ulietea) and in some other islands the crown of the bird is of a darker purple than in specimens from Tahiti, and Neboux (*l. c.*) speaks of a 'Colombe de Taïti' with a violet cap. This may be a different species." (*Wiglesworth, 'Ibis,'* 1891, p. 571.)

Ptilopus, sp.

Columba purpurata (jeune âge), *Temm. Hist. Nat. Pig.* i. p. 284 (1813); *Desm. Dict. Sc. Nat.* xl. p. 339 (1826).
Columba purpurata, juv., *Wagl. Syst. Av.* Columba, sp. 30 (1827).
Kurutreron oopa, juv., *Bp. Consp. Av.* ii. p. 26 (1854).
Ptilinopus —— ?, *Hartl. & Finsch, Orn. Centralpol.* p. 132 (1867).

"Forehead lilac-grey, surrounded with an olive-yellowish band; occiput, neck, and breast greyish, tinged with dirty yellowish; wings, back, and tail dark green, slightly shining; all the wing-coverts edged with ochraceous colour; tail with the apical band very narrow, dark grey; abdomen, vent, and under tail-coverts olive, mixed or tinged with greenish grey; bill grey; feet fuscous." (*Ex Temminck.*)

It has been supposed that the above description applies to the young of *P. purpuratus*. Hartlaub and Finsch doubt whether it refers to the young of *P. chrysogaster*; but they notice that the ochraceous edges of the wing-coverts are so peculiar as to prevent the bird from being identified with the two mentioned species.

Columba roseicapilla, *Less. Tr. d'Orn.* p. 472 (syn. emend.) (1831) (Iles Mariannes).
Columba purpurata, *Kittl.* (*nec Gm.*) *Kupfertaf.* Heft iii. p. 25, t. xxxiii. f. 2 (1833) (Guaham, Marianen Insel).
Kurukuru des Mariannes, *Less. Compl. de Buff.* viii. p. 33 (1837); *id. op. cit.* 2nd ed. p. 278 (1838).
Ptilonopus swainsoni, *G. R. Gr. Gen. B.* ii. p. 466, n. 6 (part.) (1844).
Ptilonopus purpureocinctus, *G. R. Gr. P. Z. S.* 1853, p. 48, pl. lv.; *id. Ann. & Mag. N. H.* (2) xv. p. 159 (1855); *id. List B. Brit. Mus.* Columbæ, p. 4 (syn. emend.) (1856).
Kurukuru roseicapilla, *Des Murs & Prév. Voy. Vénus, Ois.* pp. 259, 269 (part.) (1855?).
Ptilopus roseicapillus, *Bp. Consp. Av.* ii. p. 21 (1854); *id. Compt. Rend.* xxxix. p. 877 (1854), xl. p. 216, n. 46 (1855), xliii. p. 333 (1856); *id. Rev. et Mag. de Zool.* 1856, p. 536; *id. Icon. Pig.* pl. xxiii. (1857); *Schleg. Mus. P.-B.* Columbæ, p. 8 (1873); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 8 (1873); *Gieb. Thes. Orn.* iii. p. 368 (1877); *Elliot, P. Z. S.* 1878, pp. 516, 537; *Oust. Le Natural.* 1889, p. 261; *Wiglesw. Ibis,* 1891, p. 584; *id. Aves Polynes.* p. 48, n. 256 (1891).
Ptilonopus roseicapillus, *G. R. Gr. List B. Trop. Isl.* p. 37 (1859); *Rchnb. Tauben,* p. 96 (1862); *Finsch, P. Z. S.* 1874, p. 94.
Ptilinopus roseicapillus, *Rchnb. Tauben,* ii. p. 177 (1862); *Finsch & Hartl. Orn. Centralpol.* p. 127 (1867); *G. R. Gr. Hand-list,* ii. p. 225, n. 9119 (1870).
Ptilinopus purpuratus, *Hartert* (*nec Gm.*), *Kat. Vogelsamml.* p. 190, n. 2866 (1891) (Ins. Guaham).

Adult. Green; forehead and crown purple-red, margined behind with yellow; spot at the base of the lower mandible lilac-purple; upper parts green, with a yellowish tinge; chin and throat whitish; sides of the head and neck greyish green; breast green, with the feathers of the upper part tipped with pearly grey, and with a dark purple patch on the middle of the lower parts; abdomen orange, yellowish green along the middle; vent and under tail-coverts yellow, the latter becoming rich orange towards their tips; wings green, with a glossy appearance; upper wing-coverts brighter green in the middle; scapulars and inner secondaries deep blue towards the tip and margined with golden green; under wing-coverts grey, edged with yellow; quills underneath grey; tail above green with a broad greyish band, tinged with green and edged with yellow; tail below grey: "irides pale yellow; bill and feet black-grey" (*Kittlitz*). Total length about 9 inches, wing 5, tail 2·8, bill 0·6, tarsus 8·5.

Adult female. Like the male. (*Kittlitz.*)

Young. Wants the red on the forehead and crown; head entirely green; feathers of the upper parts with yellowish edges; irides brownish grey. (*Kittlitz.*)

Hab. Ladrone or Marianne Islands.

a. Ad. sk. Marianne Islands? Major-Gen. Hardwicke [P.].

31. Ptilopus mercieri.

Kurukuru mercierii, *Des Murs & Prév. Voy. Vénus, Orn.* p. 266 (1855 ?) (type examined).

Ptilopus mercieri, *Bp. Consp. Av.* ii. p. 22 (1854); *id. Compt. Rend.* xxxix. p. 877 (1854), xl. p. 216, n. 47 (1855); *id. Coup d'œil Ordr. Pig.* pp. 9, 54, n. 47 (1855); *id. Compt. Rend.* xliii. p. 833 (1856); *id. Icon. Pig.* pl. xxii. f. 2 (1857); *Gieb. Thes. Orn.* iii. p. 366 (1877); *Elliot, P. Z. S.* 1878, p. 536 (part.); *Tristr. Ibis*, 1881, p. 249; *Wiglesw. Ibis*, 1891, p. 569 (part.); *id. Aves Polynes.* p. 48, n. 249 (part.) (1891).

Ptilonopus mercieri, *G. R. Gr. List B. Trop. Isl.* p. 36 (1856); *Rchnb. Tauben*, p. 96 (1862); *Finsch, P. Z. S.* 1874, p. 94.

Ptilinopus mercieri, *Finsch & Hartl. Orn. Centralpol.* p. 128 (1867); *G. R. Gr. Hand-list*, ii. p. 225, no. 9129 (1870).

Type. Entire upper part of head and occiput and a broad spot at base of the mandible deep rosy purple; no yellow band borders behind the rosy-purple cap; nape, mantle, sides of neck, throat, and breast pale yellowish green; abdomen and flanks greenish yellow; crissum and under tail-coverts bright yellow; back and upper tail-coverts olive-green, with a yellowish tinge upon the latter; wings same colour as the back; primaries black, shaded with very dark green upon the outer webs, the first abruptly and greatly attenuated; secondaries black on the inner webs, dark green on the outer, and margined with yellow, the innermost ones with a conspicuous blue-black spot near the tips and margined broadly with yellow-green; rectrices dusky grey at base, with the outer webs green and the apical third very light yellow. Total length 9 inches, wing 5·75, tail 3·2, culmen 0·5, tarsus 0·8. (*Mus. Paris.*)

This species is very conspicuous for the great extension of the purple-red cap, which covers also the occiput.

Hab. Nukahiwa, Marquesas Islands.

32. Ptilopus tristrami.

Ptilinopus mercieri, *Finsch* (*nec Des Murs & Prévost*), *P. Z. S.* 1877, p. 410 (Marquesas, *Garrett*); *Schmeltz, Mus. Godeffr. Cat.* vii. p. 14 (1879); *id. Ethnogr. Abth. Mus. Godeffr.* p. 238 (Hivaoa or Dominica, Marquesas Isl.) (1881).

Ptilopus mercieri, part., *Elliot, P. Z. S.* 1878, p. 536; *Schmeltz, Verh. Ver. Hamb.* 1877 (1879), p. 179 (Marquesas, *Garrett*); *Tristr. Cat. Coll. B.* p. 44 (Marquesas Isl.*) (1889); *Wiglesw. Ibis*, 1891, p. 569 (part.); *id. Aves Polynes.* p. 48, n. 249 (part.) (1891).

Ptilopus tristrami, *Salvad. Bull. Mus. Zool. ed Anat. Comp. Univ. Tor.* vii. n. 135 (1892).

Adult. Entire upper part of head and a conspicuous spot at the base of the mandible deep pink-rosy; from above the eye the cap is margined behind by a broad band of bright yellow; nape greyish green; chin and throat yellowish white; sides of the neck and lower

* Canon Tristram mentions Nukahiwa as the island where Garrett collected; but this is a mistake, as Schmeltz distinctly says that it was Hivaoa.

throat greenish grey, feathers of the crop-region greenish with the tips of the feathers grey; breast, abdomen, and under tail-coverts yellow, the latter somewhat brighter; sides and flanks green; upper parts below the mantle bright green, with a yellowish tinge upon the latter; wings the same colour as the back, only brighter; secondaries margined with yellow, the innermost ones with a conspicuous dark blue spot near the tips and broadly margined with yellow-green; tail rather deeply furcated, above bright green, with the ends of the feathers broadly tipped with grey, but edged with green at the very tip; tail below grey, with a broad apical whitish band: "bill horn-green; eye-ring red; feet dirty purplish" (*Garrett, fide Finsch*). Total length about 9 inches, wing 5·4, tail 3·2, bill 0·55, tarsus 0·85. (*Mus. Tristram.*)

This species differs conspicuously from *P. mercieri*, having, 1st, a well-defined yellow band behind the pink-purple cap; 2nd, the neck and crop-region tinged with grey; 3rd, the back more green; and 4th, the breast of a brighter yellow and sharply defined from the grey crop-region.

Hab. Hivaoa, Marquesas Islands.

33. Ptilopus huttoni.

Ptilonopus huttoni, *Finsch*, *P. Z. S.* 1874, p. 92 (with fig. of the head) (Ropa or Opara); *Rowl. Orn. Misc.* i. p. 102 (1875).

Ptilopus huttoni, *Gieb. Thes. Orn.* iii. p. 365 (1877); *Elliot*, *P. Z. S.* 1878, pp. 515, 538; *Wiglesw. Ibis*, 1891, p. 573; *id. Aves Polynes.* p. 49, n. 257 (1891).

Adult female. Cap, or forehead and crown, purple-violet-red, as well as a spot at the base of the lower mandible; chin also violet-red, but paler; the red cap bordered behind by a darker purple-red band and by an almost indistinct narrow line of green; below the chin a pale yellow tinge; occiput, nape, sides of head, neck, throat, and crop greenish grey, the feathers on the throat and crop bifurcated and dull olive-green at the base, which gives these parts a more green appearance; back, rump, upper tail-coverts, and upper wing-coverts olive-green, the greater ones faintly edged with golden yellow, the inner greater wing-coverts and the inner secondaries or tertials dark green towards the tips, then with an indistinct triangular spot of dull lilac and broadly edged with dull yellowish green; primaries brown, tinged with metallic green on the outer webs; secondaries bronze-green, with narrow yellow edges; under wing-coverts grey, washed with green; under surface of the quills brown; breast olive-green, with a broad violet-red patch in the middle; lower abdomen and vent pale dull yellow; under tail-coverts violet-red, with the base yellowish; tail above dark bronze-green, with a very narrow apical margin of yellowish white; under surface of the tail brown-grey: bill in dry skin horny grey, with yellowish tip; feet pale, but probably purple-red in the living bird; "eye pink" (*Collector's note*). Total length about 12 inches, wing 6·8, tail 4·9, bill 0·82, tarsus 1·2. (*Turati's Coll.*)

The only known specimen of this species is in Turati's collection, and I have to thank Count Emile Turati (the son of my lamented friend, the late Count Ercules Turati) for having allowed this rare specimen to be sent to London to enable me to describe it. It belongs to the group of species with the violet-red spot at the base of the lower mandible, but it is easily distinguished from the allied species by its pale purplish-red chin and the very broad pectoral patch of dark purple-violet. Its size is very large, and its bill conspicuously long.

Hab. Island of Rapa or Opara, Austral Group (27½° S. lat. and 144° W. long.).

γ. Lamprotreron.

Lamprotreron, *Bp. Consp. Av.* ii. p. 17 (1854) ..... Type. P. superbus.

Range. From Celebes, through the Moluccas and the Papuan Islands to Australia.

Key to the Species.

A. broad dark blue band, more or less tinged with green, across the breast; females with a blue or purple-red occipital spot.

a. The dark blue band across the breast well defined both anteriorly and posteriorly; occipital spot of the female dark blue..... *superbus*, p. 112.

b. The dark blue band across the breast not well defined anteriorly, where it merges into the violet tinge of the upper breast; occipital spot of the female purple-red and extended over the vertex ..... *temmincki*, p. 115.

34. Ptilopus superbus.

Columba superba, *Temm. & Knip, Pig.* p. 75, pl. 33 (1808–11); *Temm. Pig. et Gall.* i. pp. 277, 474 (1813); *Vieill. N. D.* xxvi. p. 358 (1818); *Steph. Gen. Zool.* xi. 1, p. 64 (1819); *Vieill. Enc. Méth.* i. p. 381 (1823); *Desm. Dict. Sc. Nat.* xi. p. 337 (1826); *Wagl. Syst. Av.* Columba, sp. 32 (1827); *Less. Tr. d'Orn.* p. 472 (1831); *Müll. Verh. Land- en Volkenk.* pp. 22, 109 (1839–44).

Columba cyanovirens, *Less. Voy. Coq., Zool., Atlas*, pl. 42. f. 1 (1826) (♀); *Desm. Dict. Sc. Nat.* xl. p. 343 (1826); *Less. Voy. Coq., Zool.* i. 2, p. 713 (part.) (1828); *id. Man. d'Orn.* ii. p. 169 (part.) (1828); *Wagl. Isis*, 1829, p. 740; *Less. Tr. d'Orn.* p. 471 (1831); *Prév. & Knip, Pig.* ii. pl. 8 (1838–43).

Ptilinopus superbus, *Steph. Gen. Zool.* xiv. 1, p. 279 (1826); *Less. Compl. de Buff., Ois.* viii. p. 37 (1837), 2nd ed. p. 279 (1838); *Rchnb. Vög. Neuholl.* p. 318, n. 418 (1850); *Hartl. Arch. f. Naturg.* 1852, 1, p. 134; *Rams. Pr. Linn. Soc. N. S. W.* i. p. 374 (1876), ii. p. 195, n. 515 (1877); *id. Tab. List*, p. 17, n. 529, p. 30 (1888) (Tasmania!); *Hartert, Kat. Vogelsamml.* p. 190 (1891).

Ptilinopus cyanovirens, *Selb. Nat. Libr., Pigeons*, p. 109, pl. 5 (1835); *Less. Compl. de Buff., Ois.* viii. p. 27 (1837), 2nd ed. p. 276 (1838); *Rchnb. Syn. Av.* Columbariæ, f. 1324 (1847).

Ptilonopus leucogaster, *Stc. Class. B.* ii. p. 347 (1837).

Ptilonopus cyanovirens, *G. R. Gr. Gen. B.* ii. p. 467, n. 13 (1844); *id. List Spec. B. Brit. Mus.* Columbæ, p. 8 (1856); *Sclat. Journ. Pr. Linn. Soc.* ii. p. 167, n. 133 (1858); *G. R. Gr. P. Z. S.* 1858, p. 195; *id. Cat. B. New Guin.* pp. 47, 60 (1859); *Finsch, Neu-Guin.* p. 177 (1865).

Ptilonopus superbus, *G. R. Gr. Gen. B.* ii. p. 467, n. 17 (syn. emend.) (1844); *Gould, B. Austr.* v. pl. 57 (pt. xiv., 1844); *Rchnb. Vög. Neuholl.* n. 277 (1850); *Macgill. Narr. Voy. Rattlesnake*, ii. p. 357 (1852); *G. R. Gr. List Spec. B. Brit. Mus.* Columbæ, p. 7 (1856); *Sclat. Journ. Pr. Linn. Soc.* ii. p. 167, n. 137 (1858); *G. R. Gr. P. Z. S.* 1858, pp. 184, 195, 1859, p. 159; *id. Cat. B. New Guin.* pp. 46, 60 (1859); *id. Cat. B. Trop. Isl.* p. 39 (1859); *id. P. Z. S.* 1860, p. 360, 1861, p. 437; *Wall. Ibis*, 1861, p. 290, 1865, p. 379, n. 27; *Finsch, Neu-Guin.* p. 176 (1865); *Wall. J. f. O.* 1866, p. 278, n. 27; *Salvad. Ann. Mus. Civ. Gen.* vii. p. 786 (1875), ix. p. 42 (1876); *Pelz. Verh. z.-b. Ges. Wien*, 1876, p. 719; *D'Alb. Sydn. Mail*, 1877, p. 248; *id. Ann. Mus. Civ. Gen.* x. p. 18 (1877); *id. Nuova Guinea*, p. 585 (1880); *Rams. Tab. List*, pp. 17, 30 (1888).

Kurukuru superbus, *Des Murs & Prév. Voy. Vénus, Zool.* pp. 231, 268 (1855?).

Lamprotreron superba, *Bp. Consp. Av.* ii. p. 18 (1854); *id. Compt. Rend.* xxxix. p. 876 (1854), xl. p. 216, n. 36; *id. Coup d'œil Ordr. Pig.* pp. 8, 54, n. 36 (1855); *Rchnb. Tauben*, i. p. 97, n. 225, t. 236. ff. 1316–17, t. 236 *b.* f. 3366, ii. p. 178 (1862); *Rosenb. N. T. N. I.* xxv. p. 248, n. 211 (1863); *id. Journ. f. Orn.* 1864, p. 131, sp. 211 (Kei!); *Gould, Handb. B. Austr.* ii. p. 108 (1865); *G. R. Gr. Hand-list*, ii. p. 227, n. 9158 (1870); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 7 (1873); *Lenz, Journ. f. Orn.* 1877, p. 377.

Cyanotreron cyanovirens, *Bp. Consp.* ii. p. 23 (1854); *id. Compt. Rend.* xxxix. p. 878 (1854), xl. p. 215, n. 51; *id. Coup d'œil Ordr. Pigeons*, pp. 10, 54, n. 51 (1855); *Rchnb. Tauben*, p. 98, sp. 228, t. 238. f. 1324 (1862); *Rosenb. N. T. N. I.* xxv. p. 248, n. 216 (1863); *id. J. f. Orn.* 1864, p. 132, n. 216.

"Trygon (Ptilinopus) superbus, *Rchnb.*," *Gr.* (errore) *List Spec. B. Brit. Mus.* Columbæ, p. 7 (1856).

Ptilopus superbus, part., *Schleg. N. T. D.* iii. p. 209 (1866); *id. Mus. P.-B.* Columbæ, p. 30 (part.) (1873); *Rosenb. Reist. naar Geelvinkb.* p. 8 (1875); *Salvad. Ann. Mus. Civ. Gen.* ix. p. 199, n. 30 (1876), x. p. 158 (1877); *Sclat. P. Z. S.* 1877, p. 109 (Duke of York Islands); *Gieb. Thes. Orn.* iii. p. 368 (1877); *Elliot, P. Z. S.* 1878, p. 542; *Salvad. P. Z. S.* 1879, p. 62; *Rosenb. Malay. Archip.* pp. 323, 372, 396, 407, 561 (1879); *Rams. Pr. Linn. Soc. N. S. W.* iii. pp. 103, 291 (1878), iv. pp. 74, 109, n. 157 (1879); *id. Nature*, xx. p. 125 (1879) (Solomon Isl.); *D'Alb. & Salvad. Ann. Mus. Civ. Gen.* xiv. p. 119 (1879); *Salvad. ibid.* p. 658 (1879); *id. Orn. Pap. e Mol.* iii. p. 6 (1882); *Rams. Pr. Linn. Soc. N. S. W.* vii. p. 38 (1882); *Tristr. Ibis*, 1882, p. 144; *Sharpe, Journ. Pr. Linn. Soc., Zool.* xvi. p. 445 (China Straits) (1882); *Blas. & Nehrk. Verh. z.-b. Ges. Wien*, 1882, p. 428; *Rams. Pr. Linn. Soc. N. S. W.* viii. p. 28 (eggs) (1883); *Sclat. List Vert. An.* 8th ed. p. 444 (1883); *Finsch, Vög. d. Südsee*, pp. 18, 28 (Neu-Britannien) (1884); *Pleske, Bull. Acad. Pétersb.* xxix. p. 534 (1884); *Nehrk. J. f. O.* 1885, p. 34; *Guillem. P. Z. S.*

1885, pp. 574, 657 (Mysol); *Rams. Pr. Linn. Soc. N. S. W.* (2) i. p. 1151 (1887) (egg); *Grant, P. Z. S.* 1888, p. 199; *Tristr. Cat. Coll. B.* p. 45 (1889); *Salvad. Ann. Mus. Civ. Gen.* (2) ix. p. 586 (1890); *De Vis, Ann. Rep. Brit. New Guin.* p. 62 (1890); *id. Colon. Papers*, n. 103, p. 116 (1890); *id. Ibis*, 1891, p. 40; *Salvad. Ann. Mus. Civ. Gen.* (2) x. pp. 823, 833 (Goodenough I.) (1891); *id. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 50 (*Agg. Orn. Pap. e Mol.* p. 176) (1891).

Ptilopus superba, *Rosenb. Reis naar Zuidoostereil.* p. 81 (1867) (Kei).

Lamprotreron porphyrostictus, *Gould, Ann. & Mag. N. H.* (4) xiii. p. 137 (♀) (1874).

Ptilinopus (Lamprotreron) porphyrostictus, *Rams. Pr. Linn. Soc. N. S. W.* ii. p. 208 (1877).

Lamprotreron superbus, *Rams. P. Z. S.* 1876, p. 114; *Cab. & Rchnw. J. f. O.* 1876, p. 326 (Neu-Hannover); *North, Descr. Cat. Nests & Eggs Austr. B.* p. 269 (1889); *Heine & Rchnw. Nomencl. Mus. Hein. Orn.* p. 281 (1890).

Ptilopus porphyrostictus, *Gieb. Thes. Orn.* iii. p. 362 (1877).

Ptilopus swainsoni, part., *Sharpe, Rep. Voy. 'Alert,'* p. 26, specim. c (1884).

Adult male. **Pileum purple-violet; occiput and sides of the head olive-green; sides and back of the neck bright rufous; back, rump, upper tail-coverts, scapulars, and wing-coverts green, with an olive tinge; scapulars, inner greater wing-coverts, and inner secondaries with deep blue spots near the tip; smaller wing-coverts near the bend of the wing deep blue; quills black, primaries with narrow outer yellow edges; secondaries and greater wing-coverts green on the outer web and edged with yellow; chin and greater part of the cheeks pale grey; breast grey with the base of the feathers purple; below the breast a broad black band, more or less tinged with blue or green;** abdomen white; flanks green, with two white bands; under tail-coverts white, with a longitudinal green spot on the inner web and tinged with pale yellow at the apical edge; under wing-coverts greyish green; quills underneath dark grey; tail above green, with a greyish-white band at the tip; tail below dark grey, with a white band at the tip: "bill olive-green, with the tip yellowish; feet rose-colour; irides yellow" (*D'Albertis*). Total length 10·22 to 8·45 inches, wing 5·38 to 4·91, tail 3·22 to 2·63, bill 0·62 to 0·55, tarsus 0·74 to 0·66.

Adult female. Upper parts, including the pileum and hind neck, green; a deep blue spot on the occiput; blue spots on the scapulars and inner secondaries less distinct than in the male; no blue patch on the smaller wing-coverts near the bend of the wing; lower part of the throat and breast grey and green, without the purple colour at the base of the feathers; no transverse black band below the breast.

The specimens from Amboyna are the largest, and have a broader pectoral black band.

Hab. Moluccas, Papuan Islands, and also Northern Australia.

Mr. Ramsay includes also Tasmania among the localities inhabited by this species. I am not acquainted with the authority for that statement.

a. ♂ ad. sk.	Gilolo, Halmahera.	Wallace Coll.
b, *c*. ♂ ♀ ad. sk.	E. Halmahera.	Wallace Coll.
d, *e*. ♂ ♀ ad. sk.	Batchian.	Wallace Coll.
f. ♂ ad. sk.	Batchian (*Wallace*).	Gould Coll.
g, *h*. ♂ ad. et juv. sk.	Ceram.	Wallace Coll.
i. ♂ ad. sk.	Amboyna.	Leyden Museum [P.].
k. ♂ ad. sk.	Amboyna.	Sir E. Belcher [P.].
l. ♂ ad. sk.	Amboyna (*Wallace*).	Tweeddale Coll.
m, *n*. ♂ ♀ ad. sk.	Amboyna, May (*H. O. Forbes*).	Salvin-Godman Coll.
o, *p*. ♂ ad. sk.	Waigiou.	Wallace Coll.
q. ♀ ad. sk.	Waigiou (*Wallace*).	Tweeddale Coll.
r, *s*. ♂ ad. sk.	Mysol (*Wallace*).	Tweeddale Coll.
t, *u*. ♂ ad. sk.	Mysol.	Wallace Coll.
v. ♂ ad. sk.	Dorey, New Guinea (*Wallace*).	Tweeddale Coll.
w. ♀ ad. sk.	Andai, New Guinea (*A. A. Bruijn*).	Salvin-Godman Coll.
x. ♂ ad. sk.	S.E. New Guinea, Feb. (*Dr. James*).	Gould Coll.
y. ♀ ad. sk.	S.E. New Guinea (*A. Goldie*).	Tweeddale Coll.
z, *a'*. ♂ ♀ ad. sk.	Port Moresby (*A. Goldie*).	Salvin-Godman Coll.
b', *c'*. ♂ ♀ ad. sk.	Astrolabe Mts.	A. Goldie, Esq. [C.].
d', *e'*, *f'*. ♂ ♀ ad. sk.	S.E. New Guinea (*A. Goldie*).	Salvin-Godman Coll.
g'. ♂ ad. sk.	Blanche Bay, New Britain, June (*E. L. Layard*).	Salvin-Godman Coll.
h'. ♂ ad. sk.	New Britain (*Rev. G. Brown*).	Tweeddale Coll.
i', *k'*, *l'*. ♂ ♀ ad. sk.	Booby Isl., Torres Straits.	'Challenger' Exped. [C.].
m', *n'*. ♂ ♀ ad. sk. et st.	Australia.	Earl of Derby [P.].
o', *p'*. ♂ ♀ ad. sk.	N. Australia.	Purchased.
q', *r'*, *s'*. ♂ ♀ ad. sk.	N. Australia (*J. T. Cockerell*).	Salvin-Godman Coll.
t', *u'*. ♂ ♀ ad. et juv. sk.	Cape York.	Gould Coll.
v'. ♀ ad. sk.	Cape York.	Gould Coll. (Type of *L. porphyrostictus*, Gould.)
w', *x'*. ♀ ad. et ♀ imm. sk.	Somerset, Cape York (*J. T. Cockerell*).	Tweeddale Coll.
y'–*a''*. ♂ ♀ ad. et ♂ juv. sk.	Somerset, Cape York (*J. T. Cockerell*).	Salvin-Godman Coll.
b'', *c''*. ♂ ♀ ad. sk.	Port Albany.	Mr. C. Coxen [C.].
d'', *e''*. ♂ ♀ ad. sk.	Port Albany (*C. Coxen*).	Tweeddale Coll.
f''. ♀ juv. sk.	Port Molle, Queensland.	Voyage of the 'Alert.'
g''. ♀ ad. sk.	N.E. Queensland.	Sydney Museum [P.].

35. Ptilopus temmincki.

Columba superba, fœm., *Knip & Prév. Pig.* ii. pl. 42 (♀) (1838–43) (Celebes).

Ptilonopus superbus, part., *G. R. Gr. Gen. B.* ii. p. 467, n. 17 (1844).

Kurukuru temminckii, *Des Murs & Prév. Voy. Vénus, Zool.* pp. 236, 268 (♀) (*ex Prévost, l. c.*) (1855?) (*nec* Columba temminckii, *Wagl.*).

Ptilonopus formosus, *G. R. Gr. P. Z. S.* 1860, p. 360; *Wall. Ibis*, 1865, p. 379, n. 28; *id. J. f. O.* 1866, p. 278.
Ptilopus superbus (part.), *Schleg. N. T. D.* iii. p. 209 (1866); *id. Mus. P.-B.* Columbæ, p. 30 (part.) (1873); *Gieb. Thes. Orn.* iii. p. 368 (part.) (1877).
Lamprotreron formosus, *G. R. Gr. Hand-list*, ii. p. 227, n. 9159 (1870).
Ptilonopus (?) celebensis, *Wall. fide G. R. Gr. Hand-list, l. c.* (1870).
Lamprotreron formosa, *Wald. Tr. Zool. Soc.* viii. p. 82 (1872); *Lenz, J. f. O.* 1877, p. 377; *Meyer, Ibis*, 1879, p. 135; *Blas. J. f. O.* 1883, p. 138.
Ptilinopus formosus, *Brügg. Abh. naturw. Ver. Brem.* v. p. 79 (1876).
Ptilopus temmincki, *Elliot, P. Z. S.* 1878, p. 544; *Salvad. P. Z. S.* 1879, p. 62; *Blas. Zeitschr. f. ges. Orn.* 1885, p. 302, t. xiv. ff. 1, 2.
Ptilopus formosus, *Guillem. P. Z. S.* 1885, pp. 269 (Celebes, Sulu Isl.), 556 (Celebes).
? Lamprotreron temmincki, *Heine & Rehnw. Nomencl. Mus. Hein. Orn.* p. 281 (1890) (Ceram !).

Adult male. **Resembles that of *P. superbus*, from which it differs** principally in **having the black pectoral band not sharply defined** on the anterior **part, where it gradually merges into the purple of** the breast: "**iris yellow; bill green; tarsus coral**" (*Guillemard*).

Adult female. **Like the female of *P. superbus*, but with the** occipital spot **not blue, but purple-red as in the male, and extended over the vertex.**

Hab. Celebes and Sulu Islands.

I have not seen specimens from the Sulu Islands, which, according to Dr. Guillemard, "appear to be of a somewhat larger size, and are characterized by the absence of the *maillée* appearance of the breast, due to the small number of feathers that are bifid. Total length 29,5 centim., wing 14,4 centim."

a, b. ♂ ♀ ad. sk.	Makassar, Celebes.	Wallace Coll. (Type of *P. formosus*, G. R. G.)
c. ♂ ad. sk.	Makassar, Celebes.	Wallace Coll. (Type of *P. celebensis*, Wall.)
d, e, f. ♂ ♀ ad. sk.	Makassar, Celebes (*Wallace*).	Gould Coll.
g. ♂ ad. sk.	Tondano, Celebes.	Wallace Coll.
h, i. ♂ ♀ ad. sk.	Menado, N. Celebes.	Tweeddale Coll.
k, l, m. ♂ ad. sk.	Menado, N. Celebes.	Hume Coll.
n, o. ♂ ♀ ad. sk.	Celebes.	Salvin-Godman Coll.

δ. Eutreron.

	Type.
Eutreron, *Salvad. Orn. Pap. e Mol.* iii. pp. 4, 13 (1882)	P. pulchellus.

Range. Confined to New Guinea and Western Papuan Islands.

36. Ptilopus pulchellus.

Columba pulchella, *Temm. Pl. Col.* 564 (livr. 95, 1835); *Knip & Prév. Pig.* ii. pl. 14 (1838–43); *Müll. Verh. Land- en Volkenk.* p. 22 (1839–44).

Ptilinopus pulchellus, *Less. Compl. de Buff.* viii. *Ois.* p. 31 (1837); *id.* 2nd ed. p. 277 (1838); *Rosenb. N. T. N. I.* xxv. p. 248, n. 212 (1863); *id. J. f. O.* 1864, p. 132, n. 212.

Ptilonopus pulchellus, *G. R. Gr. Gen. B.* ii. p. 466, n. 7 (1844); *Sclat. Journ. Pr. Linn. Soc.* ii. p. 107, n. 130 (1858); *G. R. Gr. P. Z. S.* 1858, p. 195; *id. Cat. B. New Guin.* pp. 44, 60 (1859); *id. P. Z. S.* 1861, p. 437; *Wall. Ibis*, 1861, p. 290; *Rchnb. Tauben*, p. 46, sp. 223, t. 236. f. 134 (1862), ii. p. 178 (1862); *Finsch, Neu-Guin.* p. 177 (1865); *Wall. Ibis*, 1865, p. 378, n. 25; *id. J. f. O.* 1866, p. 278; *Salvad. Ann. Mus. Civ. Gen.* vii. p. 786 (1875); *Salvad. & D'Alb. Ann. Mus. Civ. Gen.* vii. p. 833 (1875); *D'Alb. Nuova Guinea*, p. 585 (1880).

Ptilopus pulchellus, *Bp. Consp. Av.* ii. p. 22 (1854); *id. Compt. Rend.* xxxix. p. 878 (1854), xl. p. 216, n. 50; *id. Coup d'œil Ordr. Pig.* pp. 9, 54, n. 50 (1855); *Schleg. Mus. P.-B.* Columbæ, p. 2 (1873); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 8 (1873); *Salvad. Ann. Mus. Civ. Gen.* ix. p. 198, n. 29 (1876), x. p. 158 (1877); *Gieb. Thes. Orn.* iii. p. 367 (1877); *Elliot, P. Z. S.* 1878, p. 551; *Rams. Pr. Linn. Soc. N. S. W.* iii. p. 290 (1878), iv. p. 100, n. 154 (1879); *Rosenb. Malay. Archip.* pp. 396, 561 (1879); *D'Alb. & Salvad. Ann. Mus. Civ. Gen.* xiv. p. 102 (1879); *D'Alb. Nuova Guinea*, pp. 582, 588 (1880); *Salvad. Orn. Pap. e Mol.* iii. p. 13 (1882); *Sharpe, Journ. Linn. Soc., Zool.* xvi. p. 445 (1882); *Rams. Pr. Linn. Soc. N. S. W.* viii. p. 28 (1883) (egg); *Nehrk. J. f. O.* 1885, p. 34; *Guillem. P. Z. S.* 1885, p. 65; *Finsch & Meyer, Zeitschr. f. ges. Orn.* 1886, p. 26; *Tristr. Cat. Coll. B.* p. 44 (1885); *Salvad. Ann. Mus. Civ. Gen.* (2) x. p. 823 (1891); *id. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 51 (*Agg. Orn. Pap. e Mol.* p. 177) (1891).

Cyanotreron pulchellus, *G. R. Gr. Hand-list*, ii. p. 226, n. 9147 (1870); *Heine & Rchnw. Nomencl. Mus. Hein. Orn.* p. 280 (1890) (Ceram !).

Adult male. Front and crown bright carmine, inconspicuously surrounded behind with a yellowish band; occiput, nape, and entire upper parts bright green; lores, chin, and throat white; sides of head and neck, together with the breast, light grey; lower part of the breast whitish, and then with a purple-red bar; sides of the breast yellowish; flanks green; abdomen orange; vent yellow; under tail-coverts orange; wings shining green; inner web of the quills black, the outer web of the secondaries and greater wing-coverts very narrowly edged with yellow; first primary abruptly attenuated at the tip; wings underneath grey, the under wing-coverts with narrow yellow edges; tail above shining green, with the inner web of the lateral feathers, except at the tip, blackish green; tail below grey, with a lighter apical band: "irides yellow or orange; bill greenish or yellowish, with the tip yellow; feet deep carmine" (*D'Albertis*). Total length 7·25 inches, wing 4·25, tail 2·4, bill 0·45, tarsus 0·58.

Female. Like the male.

Young. Upper parts, including the crown and forehead, green; a few scattered purple-red feathers on the forehead; throat and breast dull grey; abdomen and under tail-coverts greenish yellow; between the grey breast and the abdomen an imperfect band of dull purple.

Hab. New Guinea and the western Papuan Islands—Waigiou, Batanta, Salawatti, and Mysol.

a–d. Ad. st. et juv. sk.	Waigiou.	Wallace Coll.
e. ♂ ad. sk.	Waigiou (*Wallace*).	Gould Coll.
f, g. ♂ ad. sk.	Salawatti, Aug. (*v. Rosenberg*).	Salvin-Godman Coll.
h. ♂ ad. sk.	Salawatti, June.	Tweeddale Coll.
i. Ad. sk.	Mysol.	Wallace Coll.
k. ♂ ad. sk.	Mysol (*Wallace*).	Gould Coll.
l. ♂ imm. sk.	Mysol, May (*Hoedt*).	Salvin-Godman Coll.
m. Ad. sk.	New Guinea.	Wallace Coll.
n. Ad. sk.	New Guinea.	Purchased.
o. Ad. sk.	S.E. New Guinea (*A. Goldie*).	Tweeddale Coll.
p. Ad. sk.	S.E. New Guinea.	Salvin-Godman Coll.
q. Ad. sk.	Port Moresby.	J. Broadbent [C.].
r. Ad. sk.	Astrolabe Mts.	A. Goldie, Esq. [C.].

e. Ptilopodiscus.

Type.

Ptilopodiscus, *Salvad. Orn. Pap. e Mol.* iii. pp. 4, 15 (1882) ..... P. coronulatus.

Range. Confined to New Guinea and the Western Papuan Islands.

Key to the Species.

a. Abdominal lilac-violet patch, not surrounded with saffron-colour ..... *coronulatus*, p. 118.
b. Abdominal lilac-violet patch surrounded with saffron-colour.
  a'. Cap bright violet, and under tail-coverts deep yellow (*Meyer*) ..... *huonensis*, p. 120.
  b'. Cap pale lilac-violet ..... *trigeminus*, p. 120.
  c'. Cap very pale lilac-violet, nearly whitish.
    a''. Throat yellow ..... *geminus*, p. 120.
    b''. Sides of the head and throat grey; pileum without the purple stripe on the occiput in front of the yellow band (*Meyer*) ..... *quadrigeminus*, p. 121.

37. Ptilopus coronulatus.

? Ptilonopus pulchellus, *Wall.* (*nec Temm.*) *Ann. & Mag. N. H.* (2) xx. p. 476 (1857).

Ptilonopus coronulatus, *G. R. Gr. P. Z. S.* 1858, pp. 158, 195, pl. 138; *id. Cat. B. New Guin.* pp. 45, 60 (1859); *id. P. Z. S*

1861, p. 497; *Rchb. Tauben*, ii. p. 178 (1862); *Rosenb. N. T. N. I.* xxv. p. 248, n. 214 (1863); *id. J. f. O.* 1864, p. 132, n. 214; *Wall. Ibis*, 1865, p. 378 (part.); *Finsch, Neu-Guin.* p. 177 (1865); *Wall. Malay. Archip.* ii. p. 290 (1869); *Salvad. & D'Alb. Ann. Mus. Civ. Gen.* vii. pp. 787, 833 (1875); *Salvad. Ann. Mus. Civ. Gen.* ix. p. 42 (1876); *D'Alb. Sydn. Mail*, 1877, p. 248; *id. Ann. Mus. Civ. Gen.* x. pp. 18, 20 (1877); *Sharpe, Journ. Pr. Linn. Soc.* xiii. pp. 320, 503 (1877), xiv. p. 688 (1879); *D'Alb. Nuova Guinea*, pp. 280, 585 (1880).

Philopus (*errore*) coronulatus, *Rosenb. Reis naar Zuidoostereil.* p. 50 (1867).

Cyanotreron coronulatus, *G. R. Gr. Hand-list*, ii. p. 226, n. 9148 (1870); *Heine & Rchnw. Nomencl. Mus. Hein. Orn.* p. 280 (1890).

Ptilopus coronulatus, *Schleg. N. T. D.* iv. p. 26 (part.) (1873); *id. Mus. P.-B.* Columbæ, p. 9 (part.) (1873); *Salvad. Ann. Mus. Civ. Gen.* ix. p. 198, n. 26 (1876); *Gieb. Thes. Orn.* iii. p. 363 (part.) (1877); *Salvad. P. Z. S.* 1878, p. 99; *Elliot, P. Z. S.* 1878, p. 546; *Rams. Pr. Linn. Soc. N. S. W.* iii. pp. 76, 102, 290 (1878), iv. p. 109, n. 163 (1879); *Rosenb. Malay. Archip.* p. 372 (1879); *Salvad. P. Z. S.* 1879, p. 62; *D'Alb. & Salvad. Ann. Mus. Civ. Gen.* xiv. p. 118 (1879); *D'Alb. Nuova Guinea*, p. 588 (1880); *Salvad. Voy. Chall., Birds*, p. 82 (1881); *id. Orn. Pap. e Mol.* iii. p. 15 (1882); *Tristr. Cat. Coll. B.* p. 44 (1889); *Salvad. Ann. Mus. Civ. Gen.* (2) ix. p. 586 (1890), x. p. 823 (1891); *id. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 51 (*Agg. Orn. Pap. e Mol.* p. 177) (1891).

Ptilinopus coronulatus, *Rams. Pr. Linn. Soc. N. S. W.* i. p. 394 (1876).

Adult male. Green with golden reflections; pileum rose-lilac, edged posteriorly with deep purple and surrounded with a yellow band, narrower on the sides, broader behind; sides of the head greyish green; chin and throat yellowish; a patch on the middle of the abdomen lilac-violet; vent and under tail-coverts yellow; wings glossy green with a slight bluish tinge; quills and greater wing-coverts edged with yellow, the inner secondaries with broader edges; underside of the wing grey, the under wing-coverts slightly tinged with green; tail above glossy green, the feathers slightly edged with yellow towards the tip; tail below grey, with a paler apical band: "bill olive-green; feet purple-red; irides with an inner circle red, and an outer one yellow" (*D'Albertis*). Total length about 7·86 inches, wing 4·5, tail 2·55, bill 0·43, tarsus 0·66.

Female. Like the male, but the yellow of the abdomen and under tail-coverts paler.

Juv. Pileum green, and no lilac-violet patch on the middle of the abdomen.

Hab. Aru Islands and South-east New Guinea.

a, b. Ad. sk.	Aru Islands.	Wallace Coll. (Types of species.)
c. ♂ ad. sk.	Aru Islands.	'Challenger' Exp.
d. Ad. sk.	Port Moresby (*A. Goldie*).	Salvin-Godman Coll.
e. Imm. sk.	Port Moresby.	J. Broadbent [C.].
f. Ad. sk.	Astrolabe Mts. (*A. Goldie*).	Tweeddale Coll.

g. Ad. sk.	Aleya, S.E. Papua, April (*Dr. James*).	Tweeddale Coll.
h. Ad. sk.	Aleya, S.E. Papua, April (*Dr. James*).	Salvin-Godman Coll.
i. ♂ ad. sk.	Yule Isl., S.E. Papua, Dec. (*Dr. James*).	Tweeddale Coll.

38. Ptilopus huonensis.

Ptilopus coronulatus huonensis, *Meyer, J. f. O.* 1892, p. 263 (Huon Gulf).

Mas. "*Pt. coronulato*, G. R. Gray, simillimus, sed pileo purpureo lilacino, macula medio pectoris lætiore et magis extensa, postice croceo notata, abdomine imo et subcaudalibus saturate flavis diversus. Long. tot. mill. 195, al. 112–113, caud. 69, rostri 11, tarsi 18." (*Meyer.*)

Hab. Butaueng, near Huon Gulf, E. New Guinea.

I have not seen this species.

39. Ptilopus trigeminus.

Ptilopus coronulatus (part.), *Wall. Ibis*, 1865, p. 378 (N.W. New Guinea); *id. J. f. O.* 1866, p. 278.

Cyanotreron coronulatus (part.), *G. R. Gr. Hand-list*, ii. p. 226, n. 9148 (1870).

Ptilopus coronulatus (part.), *Schleg. Mus. P.-B.* Columbæ, p. 9 (individus de Sorong et de Salawattie) (1873); *Rosenb.* (*nec Gr.*) *Malay. Archip.* p. 396 (1879).

Ptilonopus trigeminus, *Salvad. Ann. Mus. Civ. Gen.* vii. pp. 787, 833 (1875) (*ex Schlegel*); *id. Ibis*, 1876, p. 386.

Ptilinopus marginalis, *Brügg. Abh. naturw. Ver. Brem.* v. p. 82 (1876) (*ex Schlegel*); *Salvad. Ibis*, 1876, p. 386.

Ptilopus trigeminus, *Salvad. Ann. Mus. Civ. Gen.* ix. p. 198, n. 27 (1876); *Elliot, P. Z. S.* 1878, p. 547; *Salvad. P. Z. S.* 1879, p. 63; *id. Orn. Pap. e Mol.* iii. p. 28 (1882); *id. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 51 (*Agg. Orn. Pap. e Mol.* p. 177) (1891)

? Ptilopus pulchelloides, *Bernst. Dagboek*, pp. 124, 140 (Sorong) (1883) (descriptio nulla).

? Ptilopus flavigaster, *Bernst.* (*nec Sw.*), *op. cit.* p. 154 (Sailolo) (1883).

Very much like *P. coronulatus*, from which it differs in having the lilac-violet colour of the pileum paler, and the pale purple abdominal patch surrounded with saffron-colour.

Hab. North-western New Guinea, near Sorong, and Salawatti Island.

a. Ad. sk.	New Guinea, N.W. Coast?	Wallace Coll.
b. ♀ ad. sk.	Salawatti.	Gould Coll.

40. Ptilopus geminus.

Ptilopus coronulatus (part.), *Schleg. N. T. D.* iv. p. 26 (1871); *id. Mus. P.-B.* Columbæ, p. 10 (individus de l'île de Jobie) (1873); *Rosenb. Malay. Archip.* p. 561 (part.) (1879).

Ptilonopus geminus, *Salvad. Ann. Mus. Civ. Gen.* vii. pp. 786, 787, 833, 971 (1875), viii. p. 404 (1876); *Sclat. Ibis*, 1876, p. 255; *Salvad. Ibis*, 1876, p. 386.

Ptilinopus senex, *Brügg. Abh. naturw. Ver. Brem.* v. p. 82 (1876 (*ex Schlegel*); *Salvad. Ibis*, 1876, p. 386.

Ptilopus geminus, *Salvad. Ann. Mus. Civ. Gen.* ix. p. 198, n. 28 (1876); *Elliot, P. Z. S.* 1878, p. 546; *Salvad. P. Z. S.* 1879, p. 63; *id. Orn. Pap. e Mol.* iii. p. 19 (1882); *Meyer, Sitzb. u. Abh. Ges. Isis*, 1884, *Abh.* i. p. 50 (eggs); *Guillem. P. Z. S.* 1885, p. 658 (Jobi); *Meyer, Zeitschr. f. ges. Orn.* 1886, p. 36 (Kafu); *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 51 (*Agg. Orn. Pap. e Mol.* p. 177) (1891).

Very much like *P. trigeminus*, having the lilac-purple abdominal patch surrounded with saffron-colour, but has the pileum pale lilac, nearly white; bill greenish; feet red.

Hab. Jobi, Krudu, and northern coast of New Guinea, from Dorei to Kafu.

a, *b*. ♂ ♀ ad. sk. Jobi (*Dr. A. B. Meyer*). Tweeddale Coll.

41. Ptilopus quadrigeminus.

Ptilopus quadrigeminus, *Meyer, Ibis*, 1890, p. 421 (Constantine Harbour); *Salvad. Mem. R. Ac. Tor.* (2) xlii. p. 51 (1841).

Like *P. geminus*, Salvad., but the sides of head and throat grey, the latter showing hardly a hue of yellowish in the middle; pileum a little brighter and without the purple stripe on the occiput in front of the yellow band: the yellowish brown of the belly is somewhat lighter, whereas the yellow of the under tail-coverts and abdomen (or vent?) is more intense. Wing 4·5 inches, tail 2·59, bill 0·47, tarsus 0·59 (*Meyer*).

I have not seen this species; the only remark I can make concerning it is that the want of the purple stripe on the occiput, in front of the yellow band, is a sign of immaturity in the allied species.

Hab. Constantine Harbour or its neighbourhood (*Kubary*), North-eastern coast of New Guinea.

ζ. CYANOTRERON.

	Type.
Cyanotreron, *Bp. Consp. Av.* ii. p. 24 (1854)	P. monachus.

Range. Confined to the Halmahera group.

42. Ptilopus monachus.

Columba monacha, *Reinw. in Temm. Pl. Col.* 253 (livr. 43, 1824); *Sw. Zool. Journ.* i. p. 473 (1825); *Desm. Dict. Sc. Nat.* xl. p. 344 (1826); *Wagl. Syst. Av.* Columba, sp. 35 (1827); *Knip & Prév. Pig.* ii. pl. 53 (1838-1843); *Wald. Tr. Zool. Soc.* viii. p. 83 (1872).

Ptilinopus monachus, *Sw. Zool. Journ.* i. p. 473 (1825); *Steph. Gen. Zool.* xiv. 2, p. 277 (1826); *Less. Compl. de Buff.* viii. p. 29 (1837); *id.* 2nd ed. p. 277 (1838); *Selb. Nat. Libr., Pigeons*, p. 107, pl. 4 (1835).

Ptilonopus monachus, *Sw. Class. B.* ii. p. 347 (1837); *G. R. Gr. Gen. B.* ii. p. 466, n. 8 (1844); *Wall. Ibis*, 1860, p. 198, 1865, p. 378, n. 26; *Finsch, Neu-Guin.* p. 177 (1865); *Wall. J. f. O.* 1866, p. 278; *Salvad. Ann. Mus. Civ. Gen.* vii. p. 786 (1875); *Pelz. Verh. z.-b. Ges. Wien*, 1876, p. 719.

Cyanotreron monachus, *Bp. Consp.* ii. p. 24 (1854); *id. Compt. Rend.* xxxix. p. 878 (1854), xl. p. 216, n. 52; *id. Coup d'œil Ordr. Pig.* pp. 10, 54, n. 52 (1855); *Rchnb. Tauben*, p. 98, t. 229. ff. 1314-15 (1862); *G. R. Gr. Hand-list*, ii. p. 226, n. 9146 (1870); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 9 (1873); *Heine & Rchnw. Nomencl. Mus. Hein. Orn.* p. 280 (1890).

Ptilonopus (Cyanotreron) monachus, *G. R. Gr. P. Z. S.* 1860, p. 359.

Ptilopus monachus, *Schleg. Mus. P.-B.* Columbæ, p. 12 (1873); *Rosenb. Reist. naar Geelvinkb.* p. 8 (1875); *Salvad. Ann. Mus. Civ. Gen.* ix. p. 198, no. 25 (1876); *Gieb. Thes. Orn.* iii. p. 306 (1877); *Elliot, P. Z. S.* 1878, p. 550; *Salvad. P. Z. S.* 1879, p. 63; *Rosenb. Malay. Archip.* p. 417 (1879); *Salvad. Orn. Pap. e Mol.* iii. p. 20 (1882); *Pleske, Bull. Acad. Pétersb.* xxix. p. 531 (1884); *Guillem. P. Z. S.* 1885, p. 575; *Tristr. Cat. Coll. B.* p. 44 (1887); *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 51 (*Agg. Orn. Pap. e Mol.* p. 177) (1891).

Adult male. General plumage green, with a golden or bronzy tinge; pileum, lores, a spot at the base of the lower mandible, and another in the middle of the breast lead-blue; pileum surrounded on the sides and behind with a narrow yellow band; chin, throat, lower part of the abdomen, and under tail-coverts lemon-yellow; quills bright green; secondaries and greater wing-coverts with narrow yellow edges; wings underneath lead-grey, under wing-coverts with narrow yellow edges; tail green, below grey, with a slightly paler band at the tip: "bill greenish, irides dark, feet red" (*Wallace*). Total length 7·2 inches, wing 4, tail 2·4, bill 0·5, tarsus 0·59.

Female. Differs from the male in having the forehead bluish, gradually changing into the green colour of the hind part of the head, and no blue patch in the middle of the breast.

Young. Uniform green (*Schlegel*).

Hab. The Halmahera group.

a. ♂ ad. sk.	Gilolo, Halmahera.	Wallace Coll.
b. ♂ ad. sk.	Gilolo (*Wallace*).	Tweeddale Coll.
c. ♂ ad. sk.	Ternate.	Wallace Coll.
d. ♀ ad. sk.	Ternate (*Wallace*).	Gould Coll.
e, f. ♀ ad. sk.	Kaisa Is.	Wallace Coll.
g. ♀ ad. sk.	Batchian.	Wallace Coll.
h, i. ♂ ♀ ad. sk.	Batchian.	Salvin-Godman Coll.
k. ♂ ad. sk.	Batchian (*Wallace*).	Gould Coll.
l. ♂ ad. sk.	Batchian.	Tweeddale Coll.

η. Chlorotreron.

	Type.
Chlorotreron, *Salvad. Orn. Pap. e Mol.* iii. pp. 4, 22 (1882)	P. humeralis.

Range. Confined to the Papuan Islands.

Key to the Species.

a. Smaller wing-coverts ashy lilac, with the tips deep purple ..... *humeralis*, p. 123.
b. Smaller wing-coverts uniform ashy lilac.
a'. Grey apical tail-band not visible from above . *jobiensis*, p. 124.
b'. Grey apical tail-band quite conspicuous also from above ..... *iozonus*, p. 124.

43. Ptilopus humeralis.

Ptilonopus humeralis, *Wall. P. Z. S.* 1862, p. 166, pl. 21; *id. Ibis*, 1865, p. 378; *Finsch, Neu-Guin.* p. 177 (1865); *Wall. J. f. O.* 1866, p. 278; *Becc. Ann. Mus. Civ. Gen.* vii. p. 715 (1875).
Ramphiculus humeralis, *G. R. Gr. Hand-l.* ii. p. 227, n. 9152 (1870).
Ptilopus humeralis, *Schley. N. T. D.* iv. p. 24 (1873); *id. Mus. P.-B.* Columbæ, p. 16 (1873); *Salvad. Ann. Mus. Civ. Gen.* ix. p. 198. n. 22 (1876); *Meyer in Rowl. Orn. Misc.* ii. p. 342 (1877); *Gieb. Thes. Orn.* iii. p. 364 (1877); *Elliot, P. Z. S.* 1878, p. 548; *Salvad. P. Z. S.* 1879, p. 63; *D'Alb. & Salvad. Ann. Mus. Civ. Gen.* xiv. p. 117 (1879); *Rosenb. Malay. Archip.* p. 396 (1879); *D'Alb. Nuova Guin.* p. 588 (1880); *Salvad. Orn. Pap. e Mol.* iii. p. 23 (1882); *Guillem. P. Z. S.* 1885, p. 658 (Waigiou); *Tristr. Cat. Coll. B.* p. 44 (1889); *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 51 (*Agg. Orn. Pap. e Mol.* p. 177) (1891).

Adult male. General plumage shining green; chin slightly tinged with greyish; middle of the abdomen rich orange; vent and under tail-coverts yellowish white, the latter with a green spot on the inner web; wings green, quills darker, shining, and with a bluish tinge; secondaries and greater wing-coverts with narrow yellow edges, smaller wing-coverts lilac-grey, those near the bend of the wing with broad purple tips, forming a conspicuous purple patch; the cubital smaller wing-coverts more or less with narrow purple edges; scapulars and inner secondaries lilac-grey, with green edges; wings underneath lead-colour, under wing-coverts slightly tinged with green; tail bright green above, dark grey beneath, with an apical white-grey band: "bill yellowish, with the base near the nostrils carmine; feet carmine; irides grey" (*D'Albertis*). Total length 8·7 inches, wing 5, tail 2·5, bill 0·73, tarsus 0·9.

Female. Like the male, only a little smaller.

In this species the feathers of the forehead do not extend so far forwards, so that the forehead is partly naked, and the bill appears much longer than in *P. jobiensis* and *P. iozonus*.

Hab. Salawatti, Waigiou, and North-western and Central New Guinea, along the Fly River.

a. Ad. sk.	Salawatti.	Wallace Coll. (Type of species.)
b, c. ♂ ♀ ad. sk.	Salawatti, June, July (*Wallace*).	Gould Coll.
d. ♂ ad. sk.	Fly River, New Guinea, Oct. (*D'Albertis*).	Salvin-Godman Coll.
e. Ad. sk.	New Guinea.	Wallace Coll.

44. Ptilopus jobiensis.

Ptilopus humeralis (part.), *Schleg. N. T. D.* iv. p. 25 (1871).
Ptilopus humeralis jobiensis, *Schleg. Mus. P.-B.* Columbæ, p. 16 (1873).
Ptilonopus jobiensis, *Becc. Ann. Mus. Civ. Gen.* vii. p. 715 (1875); *id. Ibis*, 1876, p. 253; *Salvad. Ann. Mus. Civ. Gen.* viii. p. 404 n. 45 (1876).
Ptilopus jobiensis, *Salvad. Ann. Mus. Civ. Gen.* ix. p. 198, n. 23 (1876); *Rowl. Orn. Misc.* ii. pp. 340, 342, 348, pl. 67 (1877); *Meyer in Rowl. Orn. Misc.* ii. p. 342 (1877); *Sclat. & Salv. Ibis*, 1877, p. 482; *Salvad. Atti R. Ac. Sc. Tor.* xiii. p. 321 (1878: Tarawai); *Elliot, P. Z. S.* 1878, p. 548; *Salvad. P. Z. S.* 1879, p. 63; *id. Orn. Pap. e Mol.* iii. p. 24 (1882).

Adult. General plumage shining green, with the head more or less bronzy; middle of the abdomen rich orange; vent and under tail-coverts yellowish white, the latter with a green spot on the inner web; wings green, quills darker, shining, and with a bluish tinge; secondaries and greater wing-coverts with narrow yellow edges; smaller and median wing-coverts, scapulars, and inner secondaries lilac-grey, with broad green edges; near the bend of the wing a lilac-grey patch; wings underneath lead-colour; under wing-coverts slightly tinged with green; tail bright green above, dark grey beneath, with an apical white-grey band: bill apparently greenish, with a yellow tip, and with the base above red; feet red. Total length 7·8 inches, wing 4·6, tail 2·1, bill 0·48, tarsus 0·62.

Female. Differs from the male in having the head green, with no bronzy tinge, and the median wing-coverts with no grey tinge in the middle (*Mus. Civ. Genoa*).

This species differs chiefly from *P. humeralis* in having no purple on the smaller wing-coverts near the bend of the wing.

Hab. Jobi and northern coast of New Guinea as far east as Tarawai.

45. Ptilopus iozonus.

Ptilonopus iozonus, *G. R. Gr. P. Z. S.* 1858, pp. 186, 195; *id. Cat. B. New Guinea*, pp. 46, 60 (1859); *id. P. Z. S.* 1861, p. 437; *Wall. Ibis*, 1865, p. 378, n. 22; *Finsch, Neu-Guin.* p. 177 (1865); *Wall. J. f. O.* 1866, p. 278; *Sharpe, Journ. Pr. Linn. Soc., Zool.* xiii. p. 503 (1877), xiv. p. 688, n. 45 (1879).
Ptilinopus ionozonus, *Rchnb. Tauben*, ii. p. 178 (1862).
Jotreron iozona, *Rosenb. N. T. N. I.* xxv. p. 249, n. 220 (1863).
Jotreron iozonus, *Rosenb. J. f. O.* 1864, p. 132, n. 220.
Philopus (*errore*) iozonus, *Rosenb. Reis naar Zuidoostereil.* p. 50 (1862).
Ramphiculus iozonus, *G. R. Gr. Hand-list*, ii. p. 227, n. 9151 (1870).
Ptilopus jozonus, *Schleg. N. T. D.* iv. p. 25 (1878); *id. Mus. P.-B.* Columbæ, p. 17 (1873).
Ptilonopus ionozonus, *Salvad. & D'Alb. Ann. Mus. Civ. Gen.* vii.

p. 834 (1875); *Salvad. op. cit.* ix. p. 42 (1876); *D'Alb. Nuova Guin.* p. 585 (1879).

Ptilopus ionozonus, *Salvad. Ann. Mus. Civ. Gen.* ix. p. 198, n. 24 (1876); *Gieb. Thes. Orn.* iii. p. 365 (1877); *Rams. Pr. Linn. Soc. N. S. W.* i. p. 394 (1876), iii. pp. 103, 289 (1878), iv. p. 100, n. 151 (1879).

Ptilopus iozonus, *D'Alb. Sydn. Mail*, 1877, p. 248; *id. Ann. Mus. Civ. Gen.* x. pp. 18, 20 (1877); *Salvad. P. Z. S.* 1878, p. 90; *Elliot, P. Z. S.* 1878, p. 547; *Salvad. P. Z. S.* 1879, p. 63; *Rosenb. Malay. Archip.* p. 372 (1879); *D'Alb. & Salvad. Ann. Mus. Civ. Gen.* xiv. p. 117 (1879); *D'Alb. Nuova Guin.* p. 588 (1880); *Salvad. Voy. 'Challenger,' Birds*, p. 82 (1881); *id. Orn. Pap. e Mol.* iii. p. 25 (1882); *Tristr. Cat. Coll. B.* p. 44 (1889); *Salvad. Ann. Mus. Civ. Gen.* (2) ix. p. 587 (1890), x. p. 823 (1891); *id. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 51 (*Agg. Orn. Pap. e Mol.* p. 177) (1891).

Adult male. Shining green, chin slightly greyish; middle of the abdomen rich orange; vent and under tail-coverts yellowish white, the latter with green spots on the inner webs; wings green, quills darker, shining, and with a bluish tinge; secondaries and greater wing-coverts with narrow yellow edges; smaller wing-coverts lilac-grey; inner secondaries grey, with broad green edges; wings underneath lead-colour, under wing-coverts slightly tinged with green; tail above bright green, dark grey beneath, and with a broad grey band at the tip, each feather with a white spot on the inner portion of the grey tip: "irides orange-yellow, pale yellow, or white; bill greenish or yellowish, with the tip yellow, and with the base of the upper mandible carmine; feet carmine" (*D'Albertis, Loria*). Total length 7·75 inches, wing 4·25, tail 2·1, bill 0·53, tarsus 0·62.

Female. Like the male.

Hab. Aru Islands and South-eastern New Guinea.

a, b. ♂ ad. sk.	Aru Islands.	Wallace Coll. (Types of species.)
c. ♀ ad. sk.	Aru Islands (*Wallace*).	Gould Coll.
d. ♀ ad. sk.	Aru Islands, Jan. (*J. T. Cockerell*).	Salvin-Godman Coll.
e. ♀ ad. sk.	Aru Islands.	'Challenger' Exp.
f. Ad. sk.	Fly River, New Guinea (*Broadbent*).	Salvin-Godman Coll.
g, h, i. Ad. sk.	Port Moresby, New Guinea (*A. Goldie*).	Salvin-Godman Coll.
k. Ad. sk.	Astrolabe Mts. (*A. Goldie*).	Tweeddale Coll.

θ. ŒDIRHINUS.

	Type.
Œdirhinus, *Cab. & Rchnw. SB. d. Ges. naturf. Fr. zu Berlin*, (Mai) 1876, p. 73	P. insolitus.
Kranocera, *Rams. Pr. Linn. Soc. N. S. W.* i. p. 372 (October, 1876)	P. insolitus.

Range. New Ireland, New Britain, and Duke of York Island.

46. Ptilopus insolitus.

Ptilopus insolitus, *Schleg. N. T. D.* i. p. 61, pl. iii. f. 3 (1863); *Gieb. Thes. Orn.* iii. p. 365 (1876); *Rowl. Orn. Misc.* ii. p. 337, pl. 66 (1877); *Meyer, Rowl. Orn. Misc.* ii. p. 340 (1877); *Elliot, P. Z. S.* 1878, p. 549; *Rosenb. Malay. Archip.* p. 561 (1879); *Salvad. Orn. Pap. e Mol.* iii. p. 26 (1882); *Tristr. Cat. Coll. B.* p. 44 (1889); *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 51 (*Agg. Orn. Pap. e Mol.* p. 177) (1891).

Drepanoptila insolita, *G. R. Gr. Hand-list*, ii. p. 227, n. 9157 (1870).

Ptilopus humeralis jobiensis (part.), *Schleg. Mus. P.-B.* Columbæ, p. 16 (monstr.?) (1873).

Ptilopus (Œdirhinus) globifer, *Cab. & Rchnw. SB. d. Ges. naturf. Fr. zu Berl. von* 16 Mai 1876, p. 73.

Œdirhinus globifer, *Cab. & Rchnw. J. f. O.* 1876, p. 326; *Salvad. P. Z. S.* 1877, p. 195.

Œdirhinus insolitus, *Sclat. P. Z. S.* 1877, p. 110; *Sclat. & Salv. Ibis*, 1877, p. 481; *Sclat. P. Z. S.* 1878, pp. 289, 290, 671; *Gould, B. of New Guin.* pt. viii. pl. 2 (1878); *Finsch, P. Z. S.* 1879, p. 13; *Sclat. P. Z. S.* 1879, p. 447; *Brown, ibid.* p. 451; *Meyer, Abbild. Vogel-Skel.* t. xxiii. (1883); *Finsch, Vög. d. Südsee*, p. 18 (New Britain) (1884).

Ædirhinus (*sic*) insolitus, *Haswell, Pr. Linn. Soc. N. S. W.* vii. p. 115 (anatomy) (1882).

Adult. Green, middle of the abdomen rich orange; lower part of the abdomen and under tail-coverts yellowish white, the latter with green spots on the inner webs; wings green, secondaries and greater upper wing-coverts edged with yellow; smaller wing-coverts pale grey; inner secondaries grey, broadly edged with green; wings underneath pale lead-colour; tail above green with a broad grey band at the tip, underneath grey with a paler apical band: naked knob at the base of the bill orange; tip of the bill yellow; feet red. Total length 9 inches, wing 5·2, tail 2·55, bill from the gape 0·9, tarsus 0·86.

Hab. New Ireland, New Britain, and Duke of York Island.

a. Ad. sk.	Duke of York Isl., Oct. (*Rev. G. Brown*).	Tweeddale Coll.
b–e. ♂ ♀ ad. sk.	Duke of York Isl., March, April.	Rev. G. Brown [C.].
f, g, h. ♂ ad. et ad. sk.	Duke of York Isl., Oct. (*Rev. G. Brown*).	Salvin-Godman Coll.

4. Sylphitreron.

	Type.
Sylphitreron, *Verr. MS.*; *Bp. Consp. Av.* ii. p. 40 (1854).	P. perlatus.
Silphidæna, *Bp. in litt.*; *G. R. Gr. Cat. Gen. & Subgen. of Birds*, p. 97 (1855)	P. perlatus.
Pœcilotreron, *Heine, Nomencl. Mus. Hein. Orn.* p. 281 (1890) (=Sylphidœna, *Bp.*).	

Range. Papuan Islands.

Key to the Species.

a. Yellow spots at the tip of the inner greater wing-coverts and inner secondaries ..... *tannensis*, p. 127.
b. No yellow spots at the tip of the inner greater wing-coverts and inner secondaries.
a'. Spots on the wing-coverts and scapulars grey.
a''. Forehead orange ..... *aurantiifrons*, p. 128.
b''. Forehead not orange.
a'''. Cubital patch orange ..... *wallacei*, p. 129.
b'''. Cubital patch red.
a^4. Head above red..... *ornatus*, p. 131.
b^4. Head above yellowish olive..... *gestroi*, p. 131.
b'. Spots on the wing-coverts and scapulars rosy.
c''. Head above yellowish olive.
c'''. Tail above uniform green ..... *perlatus*, p. 132.
d'''. Tail above green, with a light grey apical band ..... *zonurus*, p. 133.
d''. Head above grey ..... *plumbeicollis*, p. 133.

47. Ptilopus tannensis.

Hook-billed Pigeon, var., *Lath. Gen. Syn.* ii. 2, p. 632 (1783) (described from a picture in Sir Joseph Banks's collection); *Bechst. Lath. Uebers.* ii. p. 612 (1794).
Columba curvirostra, var. β, *Gm. S. N.* i. 2, p. 777 (1788).
Columba tannensis, *Lath. Ind. Orn.* ii. p. 600, n. 26 (1790); *Bechst. Lath. Uebers.* ii. p. 641 (1794); *id. Kurze Uebers.* iv. p. 380 (1811).
? Columba aromatica, var. *c*, part., *Temm. Pig. et Gall.* i. p. 442 (1813).
Columba vernans, part., *Wagl. Syst. Av.* Columba, sp. 9 (1827).
Columba xanthura, *Forst. Icon. ined.* tab. 138 (Tanna); *Wagl. Isis*, 1829, p. 739; *Forst. Descr. An.* p. 264 (1844).
Treron aromatica, part., *G. R. Gr. Gen. B.* ii. p. 467, n. 1 (1844).
Treron vernans, part., *G. R. Gr. ibid.* p. 467, n. 2 (1844).
Ptilonopus xanthura, *G. R. Gr. Gen. B.* App. p. 23 (1849).
Osmotreron tannensis, *Bp. Consp. Av.* ii. p. 14 (1856); *id. Compt. Rend.* xxxix. p. 875 (1854), xl. p. 216, n. 26 (1855); *id. Coup d'œil Ordr. Pig.* pp. 7, 54, n. 26 (1855); *Rchnb. Tauben*, p. 104 (1862); *G. R. Gr. Hand-list*, ii. p. 223, n. 9100 (1870).
Treron tannensis, *Gr. fide Bp. Consp. Av.* ii. p. 14 (*in syn.* O. tannensis) (1854); *G. R. Gr. Cat. B. Trop. Isl.* p. 39 (1859); *Gieb. Thes. Orn.* iii. p. 652 (1877).
Treron curvirostra, part., *Rchnb. Tauben*, p. 108 (1862).
Ptilinopus corriei, *Rams. Pr. Linn. Soc. N. S. W.* i. p. 133 (1876).
Chrysœnas, sp. inc., *E. L. & E. L. C. Layard, Ibis*, 1878, pp. 275, 280 (Erromango, Vate, Ambrym).
Ptilopus corriei, *Elliot, P. Z. S.* 1878, p. 566; *Tristr. Ibis*, 1879, p. 193; *Rams. Ibis*, 1882, p. 344; *Tristr. Cat. Coll. B.* p. 44 (1889); *Wiglesw. Ibis*, 1891, p. 581.
Ptilopus (Chrysœna) corriei, *Rams. Pr. Linn. Soc. N. S. W.* iii. p. 339 (1879); *Schmeltz, Verh. Ver. Hamb.* 1877 (1879), p. 78.
Treron (Osmotreron) tannensis, *Schmeltz, Verh. Ver. Hamb.* 1877 (1879), p. 78.
Ptilopus correi, *E. L. Layard, Ibis*, 1879, p. 484; *E. L. C. Layard, Ibis*, 1880, p. 291.

Ptilopus tannensis, *Wiglesw. Ibis*, 1891, p. 581; *id. Aves Polynes.* p. 47, n. 247 (1891).

Ptilonopus tannensis, *G. R. Gr. fide Wiglesw. Ibis*, 1891, p. 581 (*in syn.* P. tannensis).

Adult male. Deep green; head, chin, and throat yellowish green; lower abdomen yellowish; under tail-coverts yellowish white with green longitudinal spots on the inner webs; smaller upper wing-coverts with white-grey spots near the tips; inner secondaries or tertials and their greater or inner wing-coverts with large yellow apical spots; under wing-coverts grey, tinged with green; under surface of the quills dark grey; first primary much attenuated at the tip in some specimens, while in others it gradually tapers to a point; tail green above with a subterminal grey band, underneath dark grey with a lighter grey apical band: "iris buff; bill green; legs maroon" (*E. L. Layard*). Total length about 10 inches, wing 6·25, tail 3·25, bill 0·8, tarsus 0·9.

This bird in many respects—short tail with a grey band at the tip, under tail-coverts with green elongated spots on the inner webs, and smaller wing-coverts spotted with grey—approaches the species of the subgenera *Spilotreron* and *Chlorotreron*, and especially *P. aurantiifrons*, near which I am disposed to place it, although the first primary, much attenuated towards the tip, is not, as in the species of those subgenera, abruptly emarginated on the inner web.

Hab. New Hebrides—Tanna, Mallicolo, Erromango, Vaté, Ambrym.

a. ♂ ad. sk.	Port Resolution, Tanna, Aug.	Macgillivray [C.].
b. Ad. sk.	Tanna.	Prof. R. Collett [P.].
c. ♀ ad. sk.	Vaté Isl. (*E. L. Layard*).	Tweeddale Coll.
d. ♂ ad. sk.	Vaté Isl., Sept. (*E. L. Layard*).	Salvin-Godman Coll.
e, *f*. ♂ ad. sk.	Ambrym, N. Hebrides, June (*E. L. Layard*).	Salvin-Godman Coll.

48. Ptilopus aurantiifrons.

Ptilonopus aurantiifrons, *G. R. Gr. P. Z. S.* 1858, pp. 185, 195, pl. 137 (Aru Isl.); *id. Cat. B. New Guin.* pp. 45, 60 (1859); *id. P. Z. S.* 1861, p. 437; *Rchnb. Tauben*, ii. p. 178 (1862); *Rosenb. N. T. N. I.* xxv. p. 248, n. 215 (1863); *id. J. f. O.* 1864, p. 132, n. 215; *Finsch, Neu-Guin.* p. 177 (1865); *Wall. Ibis*, 1865, p. 380, n. 34; *id. J. f. O.* 1866, p. 279; *Wall. Malay Archip.* ii. p. 290 (1869); *Becc. Ann. Mus. Civ. Gen.* vii. p. 715 (1875); *Salvad. Ann. Mus. Civ. Gen.* vii. p. 972 (1875), ix. p. 42 (1876); *D'Alb. Sydn. Mail*, 1877, p. 248; *id. Ann. Mus. Civ. Gen.* x. pp. 18, 20 (1879); *Sharpe, Journ. Pr. Linn. Soc., Zool.* xiii. p. 503 (1877), xvi. p. 188 (1879); *D'Alb. Nuova Guinea*, p. 585 (1880).

Philopus (*sic*) aurantiifrons, *Rosenb. Reis naar Zuidoostereil.* p. 50 (1867).

Sylphidœna auranticollis (*errore*), *G. R. Gr. Hand-list*, ii. p. 227, n. 9155 (1870).

Ptilopus auranticollis (*errore*), *Schleg. Mus. P.-B.* Columbæ, p. 18 (1873); *Rosenb. Malay. Archip.* pp. 372, 396 (1879).

Ptilopus aurantiifrons, *Meyer, Sitzb. k. Ak. Wissensch. Wien*, xlix. p. 508 (1874); *Salvad. Ann. Mus. Civ. Gen.* ix. p. 197, n. 21 (1876); *Gieb. Thes. Orn.* iii. p. 362 (1877); *Rams. Pr. Linn. Soc. N. S. W.* iii. pp. 103, 290 (1878), iv. p. 100, n. 155 (1879); *Elliot, P. Z. S.* 1878, p. 556; *D'Alb. & Salvad. Ann. Mus. Civ. Gen.* xiv. p. 117 (1879); *D'Alb. Nuova Guin.* pp. 310, 588 (1880); *Salvad. Orn. Pap. e Mol.* iii. p. 28 (1882); *Finsch u. Meyer, Zeitschr. f. ges. Orn.* 1886, p. 26 (Milne Bay); *Tristr. Cat. Coll. B.* p. 43 (1889); *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 51 (*Agg. Orn. Pap. e Mol.* p. 177) (1891).

Ptilopus aurantiifrons, var. novæ guineæ, *Meyer, Sitzb. k. Ak. Wissensch. Wien*, xlix. p. 509 (1874).

Adult male. Green; forehead and lores orange, rest of the head green, with a yellowish tinge; chin and throat white; neck and crop ash-colour; upper back grey, each feather edged with orange-green; rest of the back, rump, upper tail-coverts, breast, and abdomen green, with a yellowish tinge; crissum and under tail-coverts yellowish white, the latter with green stripes on the inner web; wings green; quills with a slight bluish tinge; secondaries and greater wing-coverts with narrow yellow edges on the outer web; median upper wing-coverts and scapulars green, with grey round spots near the tip: wings below lead-colour, the under wing-coverts slightly tinged with green; tail above green, with a greyish apical band tinged with green, below grey with a lighter apical band: "bill yellow at the tip, purple-red at the base; feet pale purple-red; iris orange" (*Beccari*). Total length about 9 inches, wing 5·25, tail 2·5, bill 0·62, tarsus 0·75.

Female. Like the male.

Young. Has the grey collar tinged with green, and the green feathers of the underparts with yellowish edges.

Hab. Aru Islands, New Guinea, Jobi, Batanta, Salawatti, and Mysol.

a, b. ♂ ♀ ad. sk.	Aru Islands.	Wallace Coll. (Types of species.)
c. ♂ ad. sk.	Aru Islands.	Wallace Coll.
d. Ad. sk.	Salawatti (*Wallace*).	Gould Coll.
e. ♂ ad. sk.	Salawatti, July (*Rosenberg*).	Tweeddale Coll.
f. Ad. sk.	New Guinea.	Salvin-Godman Coll.
g. ♀ ad. sk.	N.W. New Guinea.	Salvin-Godman Coll.
h. ♀ ad. sk.	Port Moresby, S.E. New Guinea (*A. Goldie*).	Salvin-Godman Coll.

49. Ptilopus wallacei.

Ptilonopus wallacei, *G. R. Gr. P. Z. S.* 1858, pp. 185, 195, pl. 136 (Aru Isl.); *id. Cat. B. New Guin.* pp. 45, 60 (1859); *id. P. Z. S.* 1861, p. 437; *Rchnb. Tauben*, ii. p. 178 (1862); *Rosenb. N. T. N. I.* xxv. p. 248, n. 213 (1863); *id. J. f. O.* 1864, p. 132, n. 213; *Finsch, Neu-Guin.* p. 177 (1865); *Wall. Ibis*, 1865, p. 380, n. 33; *id. J. f. O.* 1866, p. 279, n. 33; *Pelz. Verh. z.-b. Ges. Wien*, xxii. p. 430 (1872).

Philopus (*errore*) wallacei, *Rosenb. Reis naar Zuidoostereil.* p. 50 (1867).

Ptilopus wallacei, *Rosenb. Reis naar Zuidoostereil.* p. 81 (Kei Isl.) (1867); *Schleg. Mus. P.-B.* Columbæ, p. 18 (1873); *Salvad. Ann. Mus. Civ. Gen.* ix. p. 197, n. 20 (1876); *Gieb. Thes. Orn.* iii. p. 369 (1877); *Elliot, P. Z. S.* 1878, p. 555; *Rosenb. Malay. Archip.* p. 372 (1879); *Salvad. Ann. Mus. Civ. Gen.* xiv. p. 658 (1879); *id. Orn. Pap. e Mol.* iii. p. 30 (1882); *Sharpe, in Gould's B. New Guin.* pt. xv. pl. 9 (1883); *Sclat. P. Z. S.* 1883, pp. 51, 195, 200; *Meyer, Sitzb. u. Abh. Ges. Isis*, 1884, Abh. i. p. 50; *Forbes, P. Z. S.* 1884, p. 433; *Guillem. P. Z. S.* 1885, p. 658; *Büttik. Not. Leyd. Mus.* viii. p. 66 (1886); *Tristr. Cat. Coll. B.* p. 45 (1889) (Larat); *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 52 (*Agg. Orn. Pap. e Mol.* p. 178) (1891).

Sylphidœna wallacei, *G. R. Gr. Hand-l.* ii. p. 227, n. 9154 (1870).

Pœcilotreron wallacei, *Heine & Rchnw. Nomencl. Mus. Hein. Orn.* p. 281 (1890).

Adult male. Pileum blood-red; cheeks and throat white; ear-coverts tipped with yellowish green; neck and breast pure grey; feathers of the upper back, scapulars, and median wing-coverts grey, edged with greenish orange; middle of the back dull orange; rump and upper tail-coverts yellowish green; a white band across lower part of breast, succeeded by a broad one of deep orange; abdomen, vent, and under tail-coverts light yellow, the latter striped with green on the inner webs; sides of breast, flanks, and thighs green; wings green; the primaries bright green with a bluish tinge; first primary gradually, but not abruptly, attenuated at the tip; secondaries and greater wing-coverts outwardly edged with yellow; smaller wing-coverts dull orange; under surface of the wing and axillaries grey; tail above yellowish green, with a broad, paler, apical band, nearly white on the inner web; tail below grey, with a broad apical white band: "bill yellow; feet red" (*Wallace*); "iris carmine, changing into yellow in the inner ring" (*Beccari*). Total length about 10 inches, wing 6, tail 3·25, bill 0·65, tarsus 0·85.

Female. Like the male.

Young. Upper part of the head olive-green, tinged with red; wing-coverts and scapulars broadly edged with yellow; shoulders, or smaller wing-coverts, obsoletely yellow-orange; white pectoral band also obsolete.

Hab. Aru and Ké Islands, Timor Laut and Babbar.

a, b. ♂ ♀ ad. sk.	Aru Islands.	Wallace Coll. (Types of species.)
c. ♂ ad. sk.	Aru Islands.	Wallace Coll.
d. Ad. sk.		Gould Coll.
e. Ad. sk.	[New Guinea.]	Salvin-Godman Coll.
f, g. ♂ ♀ ad. sk.	Timor Laut, Aug., Sept.	H. O. Forbes, Esq. [C.].
h, i. ♂ ♀ ad. sk.	Timor Laut, Aug., Sept. (*H. O. Forbes*).	Salvin-Godman Coll.
k ♂ ad. sk.	Timor Laut, Aug. (*H. O. F.*)	Tweeddale Coll.

50. Ptilopus ornatus.

Ptilopus ornatus, *Rosenb. in litt.*; *Schleg. N. T. D.* iv. p. 52 (1871) *id. Mus. P.-B.* Columbæ, p. 19 (1873); *Rosenb. Reist. naar Geelvinkb.* pp. 117, 143 (1875); *Beccari, Ann. Mus. Civ. Gen.* v p. 715 (1875); *Salvad. Ann. Mus. Civ. Gen.* ix. p. 197, n. 19 (1870), x. p. 158 (1877); *Gieb. Thes. Orn.* iii. p. 366 (1877); *Oust. Bull. Soc. Philom.* 1877, p. 55; *Elliot, P. Z. S.* 1878, p. 556; *Salvad. P. Z. S.* 1879, p. 64; *Rosenb. Malay. Archip.* pp. 561, 594 (1879); *D'Alb. Nuova Guin.* p. 582 (1880); *Salvad. Orn. Pap. e Mol.* iii. p. 32 (1882); *Guillem. P. Z. S.* 1885, p. 658; *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 52 (*Agg. Orn. Pap. e Mol.* p. 178) (1891).

Adult male. Green; upper part of head deep purple-red; throat and lower part of cheeks grey, collar on the nape deeper grey; crop and upper part of breast yellow olive-brown; the same colour tinges the back of the neck below the grey collar; back, rump, and upper tail-coverts green, the upper back slightly tinged with brown; lower part of breast, sides, and thighs green; middle of the abdomen greyish white, slightly tinged with yellow; vent and under tail-coverts yellowish white, the latter with green stripes on the inner webs; wings green; primaries deeper and with a bluish tinge; secondaries and greater wing-coverts outwardly edged with yellow; a long, purple-red patch on the smaller wing-coverts, the median ones grey, edged with green; scapulars grey, edged with orange-green, tinged in some specimens with purple-red; wings underneath lead-colour; under wing-coverts slightly tinged with green; tail above green, with a broad apical band yellow, tinged in some specimens with pale purple; tail below grey, with a yellowish-white apical band: "bill yellowish or greenish; feet purple; irides pale red or yellow-red" (*D'Albertis*). Total length 10·25 inches, wing 5·8, tail 3·25, bill 0·65, tarsus 0·75.

Female. Like the male.

Hab. North-western New Guinea.

a.	Ad. sk.	New Guinea.	Purchased.
b.	Ad. sk.	Amberbaki, May (*Laglaize*).	Salvin-Godman Coll.

51. Ptilopus gestroi.

Ptilonopus gestroi, *D'Alb. & Salvad. Ann. Mus. Civ. Gen.* v i. p. 834 (1875); *D'Alb. Nuova Guin.* p. 585 (1880).

Ptilopus gestroi, *Salvad. Ann. Mus. Civ. Gen.* ix. pp. 43, 197, n. 18 (1876); *Elliot, P. Z. S.* 1878, p. 557, pl. 34; *Rams. Pr. Linn. Soc. N. S. W.* iii. p. 289 (1878), iv. p. 100, n. 150 (1879); *D'Alb. & Salvad. Ann. Mus. Civ. Gen.* xiv. p. 116 (1879); *D'Alb. Nuova Guin.* p. 588 (1880); *Sharpe, Journ. Linn. Soc., Zool.* xvi. p. 445 (1882); *Salvad. Orn. Pap. e Mol.* iii. pp. 33, 555 (1882); *id. Ann. Mus. Civ. Gen.* (2) x. p. 823 (1891); *id. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 52 (*Agg. Orn. Pap. e Mol.* p. 178) (1891).

Similar to *P. ornatus*, from which it differs in having the head yellowish olive and the crop of a deeper brown: "bill yellow, with

nostrils purple; feet purple; irides yellow" (*D'Albertis*), or coral-red or grey, with an outer ring golden red" (*Loria*).

Like the male.

ıth-eastern New Guinea.

S.E. New Guinea (*A. Goldie*). Salvin-Godman Coll.

52. Ptilopus perlatus.

Columba perlata, *Temm. Pl. Col.* 559 (livr. 94, 1835); *Knip & Prév. Pig.* ii. pl. 21 (1838–43); *Müll. Verh. Land- en Volkenk.* p. 22 (1839–44).

Ptilinopus perlatus, *Less. Compl. de Buff.* iii. *Ois.* p. 31 (1837); *id. op. cit.* 2nd ed. p. 277 (1838).

lonopus perlatus, *G. R. Gr. Gen. B.* ii. p. 466, n. 10 (1844); *Sclat. Journ. Pr. Linn. Soc.* ii. p. 167, n. 134 (1858); *G. R. Gr. P. Z. S.* 1858, pp. 185, 195 (part.); *id. Cat. B. New Guin.* pp. 47, 60 (part.); *id. P. Z. S.* 1861, p. 437 (part.); *Wall. Ibis*, 1865, p. 380, n. 32 (part.); *Finsch, Neu-Guin.* p. 177 (part.) (1865); *Wall. J. f. O.* 1866, p. 279, n. 32 (part.).

ylphitreron perlata, *Bp. Consp.* ii. p. 40 (1854); *id. Compt. Rend.* xl. p. 217, n. 111; *id. Coup d'œil Ordr. Pig.* p. 55, n. 111 (1855); *Rchnb. Tauben*, p. 110, n. 264, t. 230. ff. 1312–13 (1862); *Rosenb. N. T. N. I.* xxv. p. 249, n. 234 (part.) (1863); *id. J. f. O.* 1864, p. 133, n. 234 (part.).

rpophaga perlata, *Bp. in litt. fide Bp. Consp.* ii. p. 40 (1854).

galoprepia perlata, *Bp. Compt. Rend.* xxxix. p. 1077 (1854); *id. Coup d'œil Ordr. Pig.* p. 18 (1855).

Sylphidæna perlata, *Bp. fide G. R. Gr. Cat. Gen. & Subgen. Birds*, p. 97 (1855).

Sylphidœna perlata, *G. R. Gr. Hand-list*, ii. p. 227, n. 9153 (part.) (1870); *Hartert, Kat. Vogelsamml.* p. 190 (1891).

Ptilopus perlatus, *Schleg. Mus. P.-B.* Columbæ, p. 17 (part.) (1873); *Salvad. Ann. Mus. Civ. Gen.* ix. p. 197, n. 16 (1876), x. p. 157 (1877); *Gieb. Thes. Orn.* iii. p. 366 (part.) (1877); *Elliot, P. Z. S.* 1878, p. 557 (part.); *Salvad. P. Z. S.* 1879, p. 64; *Rosenb. Malay. Archip.* pp. 396, 561 (1879); *D'Alb. Nuova Guin.* p. 582 (1880); *Salvad. Orn. Pap. e Mol.* iii. p. 35 (1882); *Nehrk. J. f. O.* 1885, p. 34; *Tristr. Cat. Coll. B.* p. 44 (part.) (1889); *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 52 (*Agg. Orn. Pap. e Mol.* p. 178) (1891).

† Ptilopus perlata (*sic*), *Rams. Pr. Linn. Soc. N. S. W.* iii. p. 77 (1878).

Adult male. Green, with a bluish tinge on the upper parts; head yellow-olive; throat white; a collar round the nape grey; scapulars and middle wing-coverts with rose-coloured spots in the centre; crop and upper breast brown-olive; lower breast and abdomen green; vent pale yellowish green; under tail-coverts yellowish white, with the inner web dull green, and greyish towards the base; quills bluish green, the first primary slightly narrowed at tip; under surface of the wings lead-colour; under wing-coverts slightly tinged with green; tail above bright green, below grey with an apical brighter band: "bill green-yellow; feet purple; irides with an inner ring yellow, and an outer one carmine" (*D'Albertis*). Total length 11 to 11·25 inches, wing 6·25, tail 3·25, bill 0·74 to 0·59.

Female. Like the male.

Hab. Western New Guinea, Jobi, and Salawatti.

a. ♀ ad. sk.	Amberbaki, N.W. New Guinea, May (*Laglaize*).	Salvin-Godman Coll.
b. ♂ ad. sk.	Andai, New Guinea, July (*Meyer*).	Salvin-Godman Coll.
c. ♀ ad. sk.	Passim, New Guinea, June (*Meyer*).	Salvin-Godman Coll.

53. Ptilopus zonurus.

Ptilonopus perlatus, *Wall.* (*nec Temm.*) *Ann. & Mag. N. H.* (2) xx. p. 476 (1857) (Aru); *G. R. Gr. P. Z. S.* 1858, pp. 185, 195 (part.); *id. Cat. B. New Guin.* pp. 47, 60 (part.) (1859); *id. P. Z. S.* 1861, p. 437 (part.); *Finsch, Neu-Guin.* p. 177 (part.) (1865); *Wall. Ibis*, 1865, p. 380, n. 32 (part.); *id. J. f. O.* 1866, p. 279, n. 32 (part.); *id. Malay. Archip.* ii. p. 200 (1869); *Pelz. Verh. z.-b. Ges. Wien*, xxii. p. 430 (1872); *Salvad. Ibis*, 1880, p. 325.

Sylphitreron perlata, *Rosenb. N. T. N. I.* xxv. p. 249, n. 234 (part.) (1863); *id. J. f. O.* 1864, p. 133, n. 234 (part.).

Sylphidœna perlata, *G. R. Gr. Hand-list*, ii. p. 227, n. 9153 (part.) (1870).

Ptilopus perlatus, *Schleg. Mus. P.-B.* Columbæ, pp. 17, 18 (part.) (1873); *Gieb. Thes. Orn.* iii. p. 366 (part.) (1877); *Elliot, P. Z. S.* 1878, p. 557 (part.); *Ramsay, Pr. Linn. Soc. N. S. W.* p. 290 (1878); *Rosenb. Malay. Archip.* p. 372 (1879); *Tristr. Cat. Coll. B.* p. 44 (part.) (1879).

Ptilopus zonurus, *Salvad. Ann. Mus. Civ. Gen.* ix. p. 197, n. 17 (1876) (Aru); *Elliot, P. Z. S.* 1878, p. 558; *Rams. Pr. Linn. Soc. N. S. W.* iii. p. 290 (1878), iv. p. 100, n. 152 (1879); *Salvad. P. Z. S.* 1879, p. 64; *D'Alb. & Salvad. Ann. Mus. Civ. Gen.* xiv. p. 115 (1879); *D'Alb. Nuova Guinea*, p. 588 (1880); *Salvad. Orn. Pap. e Mol.* iii. p. 36 (1882); *id. Ann. Mus. Civ. Gen.* (2) ix. p. 587 (1890), x. p. 824 (1891); *id. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 52 (*Agg. Orn. Pap. e Mol.* p. 178) (1891).

Like *P. perlatus*, save that the tail has an apical greyish-white band *above* and below; the yellow-olive colour of the head and the rufous-brown colour of the crop darker, and the under tail-coverts more whitish: "bill yellowish or greenish at the base, with the tip yellow; feet pale flesh-colour; iris with an inner ring yellow and an outer one reddish" (*D'Albertis*).

Hab. Aru Islands and Southern, Eastern, and Central New Guinea, along the Fly River.

a, b. Ad. st. et sk.	Aru Islands.	Wallace Coll.
c. ♂ ad. sk.	Aru Islands.	Gould Coll.
d. ♂ ad. sk.	Aru Islands.	Tweeddale Coll.
e. Ad. sk.	Fly River, S. New Guinea, (*Broadbent*).	Salvin-Godman Coll.
f. Ad. sk.	Astrolabe Mts.	Dr. Romilly [C.].
g. Ad. sk.	S.E. New Guinea (*A. Goldie*).	Salvin-Godman Coll.

54. Ptilopus plumbeicollis.

Ptilopus plumbeicollis, *Meyer, Ibis*, 1890, p. 422 (Constantine Harbour, N.E. New Guinea); *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 52 (1891).

Similis *Pt. perlato* et *Pt. zonuro*, sed capite cinereo et collo postico plumbeo diversus. Long. al. 0·155 m., caud. 0·26, rostri 0·21, tarsi 0·21." (*Meyer*).

"Easily distinguished from *Pt. perlatus* and *Pt. zonurus* by the whole of the head being light grey, only faintly tinged with green on the nape, and whitish towards the front, as also by its sharply defined light plumbeous hind neck, which colour spreads on to the sides of the neck" (*Meyer*); terminal grey band on the tail as in *zonurus*, but narrower.

Hab. Constantine Harbour, E. New Guinea.

κ. Thoracotreron.

Type.
Thoracotreron, *Salvad. Orn. Pap. e Mol.* iii. pp. 4, 37 (1882). P. rivolii.

Range. Moluccas and Papuan Islands, from Bouru to the Solomon Islands.

Key to the Species.

a. A crescentic band white or yellow on the breast of the males.	
a'. Crescentic band on the breast yellowish white or pure white.	
a''. Under tail-coverts yellow.	
a'''. No purple band along the middle of the abdomen.	
a^4. Crescentic band on the breast yellowish white	*strophium*, p. 135.
b^4. Crescentic band on the breast pure white	*miqueli*, p. 136.
b'''. A purple band along the middle of the abdomen	*rivolii*, p. 136.
b''. Under tail-coverts green, sometimes mingled with yellow	*prasinorrhous*, p. 137.
b'. Crescentic band on the breast white, yellow on the anterior part.	
c''. Under tail-coverts green	*bellus*, p. 138.
d''. Under tail-coverts yellow	*speciosus*, p. 139.
c'. Crescentic band on the breast uniform yellow.	
e''. Sinciput, lower breast, and abdomen lilac-purple	*johannis*, p. 140.
f''. Sinciput purple; lower breast and abdomen lilac-purple	*salomonensis*, p. 140.
b. Breast of the females uniform green, with no crescentic band.	
d'. Under tail-coverts bright yellow.	
g''. Head brighter green than the neck and back	*strophium*, p. 135.
h''. Head and neck brighter green than the back.	
c'''. Larger; wing 5·5 inches	*miqueli*, p. 136.
d'''. Medium; wing 5·2 inches	*rivolii*, p. 136.
e'''. Smaller; wing 4·5 inches	*speciosus*, p. 139.
i''. Head and neck green, uniform with the back	*johannis*, p. 140. *salomonensis*, p. 140.

e'. Under tail-coverts green, edged or mingled with yellow.
  k''. Smaller; wing 4·8 inches: only the upper part of the head darker than the rest .. *prasinorrhous*, p. 137.
  l''. Larger; wing 5·5 inches: upper part of the head and periophthalmic region darker and brighter green ..... *bellus*, p. 138.

55. Ptilopus strophium.

Ptilonopus, sp., *Macgill. Contr. to Orn.* 1850, p. 102, with figure.
Ptilonopus strophium, *Gould, apud Jardine, Contr. to Orn.* 1850, p. 105 (note); *G. R. Gr. List Spec. B. Brit. Mus.* Columbæ, p. 6 (part.) (1856); *id. P. Z. S.* 1858, p. 195; *id. Cat. B. New Guin.* pp. 46, 60 (1859); *id. P. Z. S.* 1861, p. 433.
Jotreron rivolii (part.), *Bp. Consp.* ii. p. 25 (1854); *id. Compt. Rend.* xxxix. p. 878 (part.) (1854), xl. p. 217, n. 55; *id. Coup d'œil Ordr. Pig.* pp. 10, 55, n. 55 (1855).
Ionotreron rivolii (part.), *Rchnb. Tauben*, p. 100, n. 233, t. 236 *b.* f. 3364 (*nec* t. 235. f. 1306) (1862).
Ptilonopus rivolii, *Wall.* (*nec Prév.*), *Ibis*, 1865, p. 381, n. 38; *id. J. f. O.* 1866, p. 279, n. 38.
Iotreron rivolii (part.), *G. R. Gr. Hand-list*, ii. p. 226, n. 9142 (1870).
Ptilopus strophium, *Schleg. Mus. P.-B.* Columbæ, p. 27 (1873); *Salvad. Ann. Mus. Civ. Gen.* ix. p. 196, n. 10 (1876); *Elliot, P. Z. S.* 1878, p. 563 (part.); *Salvad. P. Z. S.* 1879, p. 65; *id. Orn. Pap. e Mol.* iii. p. 37 (1882); *Meyer, Sitzb. u. Abh. der Ges. Isis*, 1884, Abh. i. p. 51; *Tristr. Ibis*, 1889, p. 558 (East Island and Rossel Island); *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 52 (*Agg. Orn. Pap. e Mol.* p. 178) (1891).
"Ptilopus cinctus, *Gould*," *Schleg. l. c.* (errore?).
Ptilopus rivolii (part.), *Rams. Pr. Linn. Soc. N. S. W.* iii. p. 290, n. 143 (Deboyne Island and Teste Island) (1878), iv. p. 100, n. 156 (1879); *Salvad. Ibis*, 1879, p. 325; *de Vis* (*nec Prév.*), *Ann. Rep. Brit. New Guin.* p. 62 (1890); *id. Colon. Papers*, n. 103, p. 116 (1890); *id. Ibis*, 1891, p. 40.

Adult male. Bright green; sinciput purple-red; crescentic band on the chest yellowish white, edged above and below with a narrow dark green line; lower abdomen and under tail-coverts rich lemon-yellow; scapulars with blue-black round spots in the centre; primaries dull greyish green, with narrow whitish edges; secondaries and rectrices with narrow yellow edges; tail above green; below dark grey, with a light grey band at the end: "bill yellow; feet purple; iris yellow" (*Ingham*). Total length 9·25 inches, wing 5·3, tail 3, bill 0·61, tarsus 0·9.

Female. Bright green; head darker green above, lower abdomen and under tail-coverts lemon-yellow. Differs from the male in wanting the red-purple colour on the sinciput, the white crescentic band on the chest, and the round bluish-black spots on the scapulars.

Hab. Louisiade Islands—Duchateau, Deboyne, Teste, East, Rossel, and St. Aignan Islands, and also S.E. New Guinea, near Port Moresby.

A specimen from Southern New Guinea has a few small purple spots along the middle of the abdomen.

The figure in Jardine's 'Contributions to Ornithology' (*l. c.*), drawn from the much-faded type specimen, is scarcely recognizable.

a. ♂ ad. sk.	Louisiade Archipelago.	J. Macgillivray, Esq. [P.]. (Type of species.)
b, c. ♂ ♀ ad. sk.	Teste Is., Louisiade Archipelago.	Sir J. Ingham [P.].
d, e. ♂ ♀ ad. sk.	Port Moresby, New Guinea (*A. Goldie*).	Salvin-Godman Coll.
f, g. ♂ ♀ ad. sk.	Port Moresby.	Gould Coll.
h. ♂ ad. sk.	New Guinea?	Verreaux Coll.

56. Ptilopus miqueli.

Ptilopus miqueli, *Rosenb. in litt.*; *Schleg. N. T. D.* iv. p. 22 (1871); *id. Mus. P.-B.* Columbæ, p. 26 (1873); *Meyer, Sitzb. k. Ak. Wissensch. Wien*, lxx. p. 128 (1874); *Rosenb. Reist. naar Geelvinkb.* pp. 117, 143 (1875); *Salvad. Ann. Mus. Civ. Gen.* ix. p. 196, n. 11 (1876); *Gieb. Thes. Orn.* iii. p. 366 (1877); *Rowl. Orn. Misc.* iii. p. 60, pl. 88 (1878); *Meyer, ibid.* p. 62 (1878); *Salvad. P. Z. S.* 1879, p. 65; *Rosenb. Malay. Archip.* pp. 561, 595 (1879); *Salvad. Orn. Pap. e Mol.* iii. p. 39 (1882).

Ptilonopus miqueli, *Becc. Ann. Mus. Civ. Gen.* vii. p. 715 (1875); *Salvad. ibid.* p. 786 (1875).

Ptilopus strophium (part.), *Elliot, P. Z. S.* 1878, p. 563.

Adult male. Similar to that of *P. strophium*, but the crescentic band on the chest pure white: bill greenish (?), with a light tip; feet red. Total length 9·25 inches, wing 5·25, tail 2·8, bill 0·62, tarsus 0·9.

Female. Similar to that of *P. strophium*, and perhaps indistinguishable.

Hab. Jobi and Miosnom, Geelvink Bay.

57. Ptilopus rivolii.

Columba rivolii, *Prév. & Knip, Pig.* ii. pl. 57 (1838–43); *Des Murs, Icon. Orn.* pl. 4 (1845).

Ptilonopus rivolii, *G. R. Gr. Gen. B.* iii. App. p. 23 (1849); *id. P. Z. S.* 1858, p. 195; *id. Cat. B. New Guin.* p. 60 (1859); *id. P. Z. S.* 1861, p. 437; *Finsch, Neu-Guin.* p. 177 (1865).

Jotreron rivolii (part.), *Bp. Consp. Av.* ii. p. 25 (1854); *id. Compt. Rend.* xxxix. p. 878 (part.) (1854), xl. p. 217, n. 55; *id. Coup d'œil Ordre Pig.* pp. 10, 55, n. 55 (part) (1855).

Ionotreron rivolii (part.), *Rchnb. Tauben*, p. 100, n. 233, t. 235. f. 1306 (*nec* t. 236 *b.* f. 3364) (1862).

Iotreron rivolii (part.), *G. R. Gr. Hand-list*, ii. p. 226, n. 9142 (1870).

Ptilonopus rivolii (part.), *Rams. Pr. Linn. Soc. N. S. W.* i. p. 374 (1876).

Ptilopus rivolii, *Sclat. P. Z. S.* 1877, p. 109; *Gieb. Thes. Orn.* iii. p. 368 (part.) (1877); *Salvad. Ann. Mus. Civ. Gen.* xii. p. 345 (1878); *Elliot, P. Z. S.* 1878, p. 561; ? *Rams. Pr. Linn. Soc. N. S. W.* iii. p. 290 (part.) (1878) (Cloudy Bay and Blunden River), iv. p. 100, n. 156 (1879); *Salvad. P. Z. S.* 1879, p. 65; *Gould, B. New Guin.* pt. ix. pl. 9 (1879); *Salvad. Ibis*, 1879, p. 325; *Finsch, Ibis*, 1881, p. 538; *Salvad. Orn. Pap. e Mol.* iii. p. 40 (1882).

Adult male. Bright green; sinciput and middle of the abdomen purple-red; crescentic band on the chest white, slightly tinged with yellow; lower abdomen and under tail-coverts rich yellow; scapulars with round bluish-black spots in the centre; primaries dull greyish green, with narrow whitish edges; secondaries and rectrices with narrow yellow edges; tail above green, below dark grey, with a light grey band at the end: bill greenish, with the tip yellowish; feet purple. Total length 8·75 inches, wing 5·2, tail 2·8, bill 0·72, tarsus 0·78.

Female. Green, with the pileum deeper and brighter; lower abdomen and under tail-coverts bright yellow.

Hab. New Ireland (?) and Duke of York Island.

Mr. Ramsay mentions specimens from Cloudy Bay and Blunden River.

a, b. ♂ ♀ ad. sk. Duke of York Island (*Rev. G. Brown*). Tweeddale Coll.

58. Ptilopus prasinorrhous.

Ptilonopus, n. sp., *Wall. Ann. & Mag. N. H.* (2) xx. p. 473 (1857) (Ké Isl.).

Ptilonopus prasinorrhous, *G. R. Gr. P. Z. S.* 1858, pp. 185, 195; *id. Cat. B. New Guin.* pp. 64, 60 (1859); *id. P. Z. S.* 1861, p. 436; *Wall. Ibis*, 1861, p. 290; *id. P. Z. S.* 1863, p. 34; *id. Ibis*, 1865, p. 381, n. 37; *Finsch, Neu-Guin.* p. 177 (1865); *Wall. J. f. O.* 1866, p. 279, n. 37; *Sclat. P. Z. S.* 1873, p. 698.

Ionotreron prasinochroa, *Rchnb. Tauben*, ii. p. 180, n. 233 *b* (1862).

Jotreron prasinorhous, *Rosenb. N. T. N. I.* xxv. p. 249, n. 218 (1863); *id. J. f. O.* 1864, p. 132, n. 218.

Ptilopus prasinorrhous, *Schleg. N. T. D.* iii. pp. 210, 346 (1866); *Rosenb. Reis naar de Zuidoostereil.* pp. 81, 88 (1867); *Salvad. Ann. Mus. Civ. Gen.* ix. p. 196, n. 13 (1876), x. p. 157 (1877), xii. p. 346 (1878); *Rams. Pr. Linn. Soc. N. S. W.* iii. p. 291 (1878); *Elliot, P. Z. S.* 1878, p. 562; *Salvad. P. Z. S.* 1879, p. 65; *id. Ann. Mus. Civ. Gen.* xiv. p. 657 (1879); *D'Alb. Nuova Guin.* p. 582 (1880); *Salvad. Orn. Pap. e Mol.* iii. p. 41 (1882); *Blas. & Nehrk. Verh. z.-b. Ges. Wien*, 1882, p. 428 (Amboina); *Guillem. P. Z. S.* 1885, pp. 575 (Weeda Isl.), 658 (Traitor's Isl., N. of Jobi); *Tristr. Cat. Coll. B.* p. 44 (1889); *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 53 (*Agy. Orn. Pap. e Mol.* p. 179) (1891).

Iotreron prasinorrhous, *G. R. Gr. Hand-list*, ii. p. 226, n. 9143 (1870).

Ptilopus rivolii (part.), *Schleg. N. T. D.* iv. p. 21 (1871); *id. Mus. P.-B.* Columbæ, p. 24 (1873); *Meyer, Sitzb. k. Ak. d. Wissensch. zu Wien*, lxx. p. 128 (part.) (1874); *Salvad.* (*nec Prév.*) *Ann. Mus. Civ. Gen.* viii. p. 383, n. 38 (1876), ix. p. 196, n. 12 (part.) (1876) (Buru); *Gieb. Thes. Orn.* iii. p. 368 (part.) (1877); *Rosenb. Malay. Archip.* pp. 372, 396, 561 (1878-79).

Adult male. Bronze-green; sinciput and centre of the lower breast and upper abdomen purple-red; crescentic band on the chest white, slightly tinged with yellow; lower abdomen and under tail-coverts green, with the edges of the feathers yellow; scapulars with bluish-black round spots on the centre; primaries dark greyish

green, with narrow whitish edges; secondaries and rectrices with narrow yellow edges; tail above green, below dark grey, with a light grey band at the end: bill and naked skin of the lores yellow; feet dark purple: "irides yellow" (*D'Albertis*), or "red saffron" (*Beccari*). Total length 9·25–8·8 inches, wing 4·8, tail 3·15, bill 0·66–0·59, tarsus 0·86–0·78.

Female. Bronze-green, deeper and brighter on the pileum, differing from the male in wanting the crescentic white-yellowish band on the chest, the red-purple colour on the sinciput and middle of the breast, and the black spots on the scapulars.

Specimens from Buru have more yellow on the under tail-coverts, which sometimes are wholly of this colour, approaching *P. rivolii*.

Hab. Western Papuan Islands—Ké, Mysol, Koffiao, Salawatti, Batanta, Waigiou, Guebeh, Gagie, Jobi, Mafoor, and Traitor's Islands (Geelvink Bay); the Moluccas—Dammar, Weeda Island, Khoor, Tejoor, Matabello, Monawolka, Poulo-Padjang, Goram, Amboyna, and Bouru.

a. ♂ ad. sk.	Ké Isl.	Wallace Coll. (Type of species.)
b. ♂ ad. sk.	Ké Isl. (*Wallace*).	Gould Coll.
c. ♂ ad. sk.	Ké Isl., July (*H. O. Forbes*).	Salvin-Godman Coll.
d. ♂ ad. sk.	Mysol.	Wallace Coll.
e, *f*. ♂ ♀ ad. sk.	Mysol.	Tweeddale Coll.
g. ♂ ad. sk.	Jobi.	Salvin-Godman Coll.
h, *i*, *k*. ♂ ♀ ad. sk.	Matabello Isl.	Wallace Coll.
l, *m*. ♀ sk.	Matabello Isl. (*Wallace*).	Gould Coll.
n. ♂ ad. sk.	Bouru (*Wallace*).	Gould Coll.
o. ♂ ad. sk.	Bouru, Nov. (*H. O. Forbes*).	Salvin-Godman Coll.
p. ♂ imm. sk.		Salvin-Godman Coll.
q. ♀ imm. sk.	[Java.]	Purchased.

59. Ptilopus bellus.

Ptilonopus bellus, *Sclat. P. Z. S.* 1873, pp. 696, 698, pl. lvii.; *Becc. Ann. Mus. Civ. Gen.* vii. p. 715 (1875); *Salvad. ibid.* p. 786 (1875).

Ptilopus bellus, *Meyer, Sitzb. k. Akad. Wissensch. Wien*, lxx. p. 128 (1874); *Salvad. Ann. Mus. Civ. Gen.* ix. p. 197, n. 14 (1876), x. p. 157 (1877); *Oust. Bull. Soc. Philom. Paris*, 1877, p. 55; *Gieb. Thes. Orn.* iii. p. 362 (1877); *Rowl. Orn. Misc.* iii. p. 171 (1878); *Rams. Pr. Linn. Soc. N. S. W.* iii. p. 291 (1878); *Elliot, P. Z. S.* 1878, p. 563; *Salvad. P. Z. S.* 1879, p. 66; *Gould, B. of New Guin.* pt. ix. pl. 8 (1879); *D'Alb. Nuova Guin.* pp. 77, 582 (1880); *Rams. Pr. Linn. Soc. N. S. W.* viii. p. 27 (1883) (nest and eggs); *Guillem. P. Z. S.* 1885, p. 658; *Tristr. Cat. Coll. B.* p. 43 (1889); *De Vis, Ann. Rep. Brit. New Guin.* p. 62 (1890); *id. Colon. Papers*, n. 103, p. 116 (1890); *id. Ibis*, 1891, p. 40; *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 53 (*Agg. Orn. Pap. e Mol.* p. 179) (1891).

Ptilopus patruelis, *Meyer, Zeitschr. f. ges. Orn.* 1886, p. 27, Taf. vi. (S.E. New Guinea).

Adult male. Bronze-green; occiput and sides of the head deeper

and brighter; sinciput and middle of the lower breast purple-red; crescentic pectoral band yellow on the upper part and white on the lower; lower abdomen and under tail-coverts green, with the edges of the feathers more or less yellow; scapulars with bluish-black round spots in the middle; primaries dark greyish green, with narrow whitish edges; secondaries and rectrices with narrow yellow edges; tail above green, below dark grey, with a light grey band at the end: "bill yellow; feet dark carmine; irides yellow" (*D'Albertis*). Total length 9·8 inches, wing 5·5, tail 2·8, bill 0·70, tarsus 0·9.

Female. Green; pileum and sides of the head deeper and brighter; lower abdomen and under tail-coverts green, with yellow edges; no purple-red colour on the sinciput and middle of the lower breast; no crescentic band on the chest and no bluish-black spots on the scapulars.

Hab. New Guinea.

a. ♂ ad. sk.	Mt. Arfak, N.W. New Guinea.	Gould Coll.
b. ♀ ad. sk.	Mt. Arfak, Feb.	Salvin-Godman Coll.
c. ♂ ad. sk.	Doktur, New Guinea, April.	Salvin-Godman Coll.
d. ♀ ad. sk.	N.W. New Guinea.	Gould Coll.
e. ♀ ad. sk.	N.W. New Guinea.	Salvin-Godman Coll.
f. ♂ ad. sk.	Mt. Owen Stanley.	G. Schneider [C.].
g, *h*. ♂ ♀ ad. sk.	Astrolabe Mts.	A. Goldie, Esq. [C.].
i, *k*. ♂ ♀ ad. sk.	S.E. New Guinea (*A. Goldie*).	Tweeddale Coll.
l, *m*. ♂ ♀ ad. sk.	S.E. New Guinea (*A. Goldie*).	Salvin-Godman Coll.

60. Ptilopus speciosus.

Ptilopus speciosus, *Rosenb. in litt.*; *Schleg. N. T. D.* iv. p. 23 (1871); *id. Mus. P.-B.* Columbæ, p. 27 (1873); *Meyer, Sitzb. k. Ak. Wissensch. Wien*, lxx. p. 128 (1874); *Rosenb. Reist. naar de Geelvinkb.* pp. 117, 143, pl. xv. f. 1 (1875); *Becc. Ann. Mus. Civ. Gen.* vii. p. 715 (1875); *Salvad. ibid.* ix. p. 197, n. 15 (1876); *Gieb. Thes. Orn.* iii. p. 368 (1877); *Elliot, P. Z. S.* 1878, p. 564; *Rowl. Orn. Misc.* iii. p. 171, pl. 104 (1878); *Gould, B. of New Guin.* pt. ix pl. 7 (1879); *Rosenb. Malay. Archip.* pp. 561, 595 (1879); *Salvad. Orn. Pap. e Mol.* iii. p. 47 (1882); *Meyer, Abbild. Vogel-Skel.* t. xxxiii. (1883); *Guillem. P. Z. S.* 1885, p. 658 (Traitor's Is., N. of Jobi); *Tristr. Cat. Coll. B.* p. 45 (1889); *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 53 (*Agg. Orn. Pap. e Mol.* p. 179) (1891).

Adult male. Green, the head and neck brighter; a spot on each side of the forehead, just above the lores but near the eyes, purple; on the chest a broad crescentic band of bright yellow, surrounded inferiorly by a white band; centre of the breast and abdomen purple-lilac; lower abdomen, vent, and under tail-coverts rich yellow; wings green; primaries slate-black, narrowly edged with yellow, towards the tips greenish grey; secondaries green, like the back, and narrowly edged with yellow on the outer web; wings underneath slate-grey; under wing-coverts slightly washed with green and edged with yellow; tail above green, below grey, with a lighter apical band; rectrices with narrow yellow edges: bill blackish,

with pale tip; feet purple: "irides yellow" (*Beccari*). Total length 7 inches, wing 4·5, tail 2·30, bill 0·56, tarsus 0·8.

Female. Green; head and neck brighter; the feathers of the lower breast and abdomen edged with yellow; under tail-coverts yellow; wings and tail as in the male, from which it differs in wanting the purple spots on the sides of the forehead, the yellow-and-white crescentic band on the chest, and the beautiful purple-lilac colour on the lower breast and upper abdomen.

Hab. The islands of Mafoor and Mysori, and also Traitor's Island (N. of Jobi), in Geelvink Bay.

a. ♂ ad. sk.	Mafoor, March.	Dr. A. B. Meyer [C.].
b. ♀ ad. sk.	Mafoor, March (*Meyer*).	Gould Coll.
c. ♂ ad. sk.	Kordo, Mysori, April (*Meyer*).	Gould Coll.
d, *e*. ♂ ad. sk.	Kordo.	Salvin-Godman Coll.
f. ♂ ad. sk.		Tweeddale Coll.

61. Ptilopus johannis.

Ptilopus johannis, *Sclat. P. Z. S.* 1877, p. 556, n. 16; *Elliot, P. Z. S.* 1878, p. 564; *Salvad. P. Z. S.* 1879, p. 66; *Sclat. Voy. 'Challenger,' Birds*, p. 32, pl. x. (1881); *Salvad. Orn. Pap. e Mol.* iii. p. 49 (1882); *Sclat. P. Z. S.* 1883, p. 348; *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 53 (*Agg. Orn. Pap. e Mol.* p. 179) (1891).

Adult male. Similar to the male of *P. salomonensis*, from which it differs in having the fore part of the head lilac instead of rich purple-lilac: "eyes light yellow; feet light red or pink colour; tip of bill light green" (*Moseley*). Total length 7·75 inches, wing 5, tail 2·70, bill 0·6, tarsus 0·76.

Female. Like that of *P. salomonensis*: "eyes white" (*Moseley*).

Hab. Admiralty Islands.

a, *b*, *c*. ♂ ♀ ad. sk.	Admiralty Isl.	'Challenger' Exp. (Types of species.)

62. Ptilopus salomonensis.

Ptilonopus solomonensis, *G. R. Gr. Ann. & Mag. N. H.* (4) v. p. 328 (♀) (1870).

Ptilopus solomonensis, *Gieb. Thes. Orn.* iii. p. 368 (1876); *Rams. Pr. Linn. Soc. N. S. W.* iv. p. 74 (note) (1879); *Sclat. P. Z. S.* 1883, p. 348; *Sharpe, in Gould's B. New Guin.* pt. xix. pl. 8 (1885); *Grant, P. Z. S.* 1888, p. 199.

Ptilopus salomonensis, *Salvad. Ann. Mus. Civ. Gen.* ix. p. 196, n. 6 (1876); *Tristr. Ibis*, 1882, p. 145; *Salvad. Orn. Pap. e Mol.* iii. pp. 50, 555 (1882); *id. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 53 (*Agg. Orn. Pap. e Mol.* p. 179) (1891).

Ptilopus rivolii (part.), *Elliot, P. Z. S.* 1878, p. 561 (♀); *Salvad. P. Z. S.* 1879, p. 65 (♀).

Ptilopus ceraseipectus, *Tristr. Ibis*, 1879, p. 442 (♂); *Rchnw. & Schal. J. f. O.* 1879, p. 424; *Salvad. Ibis*, 1880, p. 131; *Tristr. Ibis*, 1880, p. 247, 1882, pp. 139, 144, n. 73; *id. Cat. Coll. B.* p. 43 (1889).

Ptilopus salomonis (*errore*), *Salvad. Ibis*, 1880, p. 131.

Ptilopus johannis, *Rams.* (*nec Sclat.*) *Pr. Linn. Soc. N. S. W.* vi. p. 724 (1881), vii. p. 39 (1882); *Nature*, vol. xxv. pp. 282, 355 (1882).

Adult male. General plumage green; forehead rich purple-lilac, extending above the eyes and on to the lores; scapulars with subterminal spots of purplish black; chin and throat greyish green; on the chest a broad crescentic band of bright yellow; centre of the breast and abdomen purple-lilac; sides of the body and flanks green; thighs green, edged with yellow internally; lower abdomen, vent, and under tail-coverts rich yellow: wings green, primary coverts and quills blackish, externally dark grass-green, the primaries washed with dull greenish grey; outer secondaries with a narrow fringe of yellow; wings underneath slaty grey, the under wing-coverts washed with green; tail above green, the lateral tail-feathers grey at the base and near the end of the inner web, with a broad subterminal band of blackish; tail below dark grey, with an apical light grey band: "bill lead-colour; iris bright yellow; fee dark cherry" (*Richards*). Total length 8·5 inches, wing 4·75, tail 2·75, bill 0·65, tarsus 0·85.

Female. General colour green; no purple-lilac colour on the forehead and on the chest and abdomen and no crescentic yellow band on the breast: lower abdomen and under tail-coverts rich yellow; wings and tail as in the male: "bill black; legs red; iris yellow" (*Woodford*).

Hab. Solomon Islands—San Cristoval, Guadalcanar.

a. ♀ ad. sk.	Solomon Isl., Aug.	J. Brenchley, Esq. [P.] (Type of species.)
b. ♀ ad. sk.	Solomon Is.	Tweeddale Coll.
c, *d*. ♂ ♀ ad. sk.	San Cristoval, Aug. (*G. E. Richards*).	Salvin-Godman Coll.
e. ♂ ad. sk.	Ugi.	Tweeddale Coll.

λ. SPILOTRERON.

Type.

Spilotreron, *Salvad. Orn. Pap. e Mol.* iii. pp. 4, 51 (1882) ..... P. melanocephalus.

Range. From Java, Flores, and Lombock, through Celebes and Ceram, to the Sanghir Islands and the Philippines.

Key to the Species.

a. Smaller; wing 4·0–4·71 inches.
  a'. Black occipital spot broad; lower part of the abdomen yellow.
    a''. Gular spot pale lemon-yellow.
      a'''. Gular spot narrower ..... *melanocephalus*, p. 142.
      b'''. Gular spot broader ..... *bangueyensis*, p. 143.
    b''. Gular spot yellow-orange ..... *melanospilus*, p. 144.
  b'. Black occipital spot narrower; gular spot yellow-orange; lower abdomen deeper orange than in the above species ..... *chrysorrhous*, p. 144.
b. Larger; wing 5·13 to 5·34: occipital black spot broad; gular spot lemon-yellow; lower abdomen deep orange ..... *xanthorrhous*, p. 145.

63. Ptilopus melanocephalus.

Tourterelle de Batavia, *D'Aubent. Pl. Enl.* 214.
Turvert, part., *Buff. Hist. Nat. Ois.* ii. p. 555 (1771).
Columba indica, *Müll.* (*nec Linn.*) *S. N. Suppl.* p. 133, n. 35 *e* (1776); *Cass. Pr. Acad. Philad.* 1864, p. 248.
Columba melanocephala, *Forster, Zool. Ind.* p. 16, t. vii. (1781) (Java); *Gm. S. N.* i. p. 781, n. 54 (1788); *Lath. Ind. Orn.* ii. p. 610, n. 59 (1790); *Bonn. Enc. Méth.* i. p. 237 (1790); *Temm. & Knip, Pig.* p. 69, pl. 30 (1808–11); *Temm. Pig. et Gall.* i. pp. 263, 470 (1813); *Vieill. N. D.* xxvi. p. 376 (1818); *Steph. Gen. Zool.* xi. 1, p. 55 (1819); *Horsf. Tr. Linn. Soc.* xiii. p. 182 (1821); *Desm. Dict. Sc. Nat.* xl. p. 334 (1826); *Wagl. Syst. Av.* Columba, sp. 33 (1827); *id. Isis*, 1829, p. 741; *Less. Tr. d'Orn.* p. 471 (1831).
Black-capped Pigeon, *Lath. Syn.* ii. 2, p. 654, n. 50 (1783)
Ptilinopus melanocephalus, *Steph. Gen. Zool.* xiv. 1, p. 279 (1826); *Less. Compl. de Buff., Ois.* iii. p. 26 (1837), 2nd ed. p. 276 (1838); *Hartl. Syst. Verz. Brem.* p. 97 (1844); *Blyth, Cat. B. Mus. A. S. B.* p. 230, n. 1394 (1849); *Hartert, Kat. Vogelsamml. Mus. Senkenb.* p. 190 (part.) (1891).
Ptilonopus melanocephalus, *G. R. Gr. Gen. B.* ii. p. 467, n. 22 (1844); *id. List B. Brit. Mus.* Gallinæ, p. 1 (1844); *id. List Spec. B. Brit. Mus.* Columbæ, p. 6 (1856); *Wall. P. Z. S.* 1863, p. 486 (Lombock, Flores); *id. Ibis*, 1865, p. 381 (part.).
Jotreron melanocephala, *Bp. Consp. Av.* ii. p. 24 (1854); *id. Compt. Rend.* xxxix. p. 878 (1854), xl. p. 217, n. 54; *id Coup d'œil Ordr. Pig.* pp. 10, 55, n. 54 (1855); *Salvad. Ann. Mus. Civ. Gen.* vii. p. 671 (1875); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 280 (1890).
Ionotreron melanocephala, *Rchnb. Tauben*, i. p. 100, t. 237. ff. 1318–19 (1862), ii. p. 180 (Sumatra!) (1862).
Ptilopus melanocephalus (part.), *Schleg. De Dierent.* p. 210 (1864); *id. N. T. D.* iii. p. 207 (1866); *id. Mus. P.-B.* Columbæ, p. 28 (part.) (1873); *Gieb. Thes. Orn.* iii. p. 365 (part.) (1877); *Elliot, P. Z. S.* 1878, p. 551; *Nichols. Ibis*, 1881, p. 154; *Salv. Cat. B. Strickl. Coll.* p. 555 (1882); *Sclat. List Vert. An.* 8th ed. p. 444 (1889); *Vorderm. N. T. N. I.* xliv. p. 225 (1884), xlvi. p. 23 (1886); *Meyer, J. f. O.* 1891, p. 70; *Vorderm. N. T. N. I.* li. p. 400 (1892); *Elliot, Auk*, 1892, p. 81.
Iotreron melanocephala (part.), *G. R. Gr. Hand-list*, ii. p. 226, n. 9141 (1870); *Wald. Tr. Zool. Soc.* viii. p. 83 (1872); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 9 (1873); *Tweedd. Orn. Works*, p. 183 (part.) (1881).
Jotreron melanauchen, *Salvad. Ann. Mus. Civ. Gen.* vii. p. 671 (1875) (Flores); *Meyer, Verh. z.-b. Ges. Wien*, 1881, p. 766 (Sumba).
Ptilopus melanauchen, *Meyer, J. f. O.* 1891, p. 70; *Elliot, Auk*, 1892, p. 81.

Adult male. Green; head and neck ashy; occiput and back of neck black; chin and throat pale lemon-yellow; vent and short under tail-coverts yellow, long ones carmine; primaries black on inner web, green on outer; first primary slightly scalloped and narrowed at tip: "edge of the eyelids light yellow; irides of three

colours, an outer ring light yellow, a middle one dark grey, and the inner one light grey; bill green-yellow; feet vinous red" (*Vorderman*). Total length about 9 inches, wing 4·50, tail 3, bill 0·55, tarsus 0·6.

Female. Entirely green, with the exception of the longest feathers of the under tail-coverts, which are carmine like those of the male.

Young. Similar to the female, but with the under tail-coverts entirely green, or with scarcely a tinge of reddish on the longer ones.

Hab. Java, Flores, Sumbawa, Sumba, and Lombock.

a, b. ♂ ad. st. et ♂ imm. sk.	Java.	Baron Laugier Coll.
c. ♂ ad. sk.	Java (*Horsfield*).	India Museum [P.].
d, e. ♂ ♀ ad. sk.	Java.	India Museum [P.].
f. ♂ ad. sk.	Java.	Sir E. Belcher [P.].
g. ♀ imm. sk.	Java.	Gould Coll.
h. ♂ ad. sk.	E. Java (*Wallace*).	Gould Coll.
i. ♀ imm. sk.	W. Java.	Gould Coll.
k, l, m. ♂ ad. et imm. sk.	Lombock.	Wallace Coll.
n. ♂ ad. sk.	Lombock (*Wallace*).	Gould Coll.
o, p. ♂ ♀ ad. sk.	Flores.	Wallace Coll.
q. ♂ ad. sk.	Flores (*Wallace*).	Salvin-Godman Coll.
r. ♀ ad. st.	Indian Archipelago (*Lydth*).	Purchased.
s. ♀ ad. st.	Indian Archipelago.	Leyden Museum [P.].
t. Skeleton.	Java.	Purchased.

64. Ptilopus bangueyensis.

Ptilopus melanocephalus, *Tweedd.* (*nec Forster*) *P. Z. S.* 1878, p. 951 (Zamboanga, Sud Mindanao), 1879, p. 73 (Basilan); *Sharpe, P. Z. S.* 1879, p. 316 (Sulu); *Wardl. Rams. Tweedd. Orn. Works*, p. 659 (1881); *Sharpe, Ibis*, 1884, p. 322 (Palawan); *Guillem. P. Z. S.* 1885, p. 269 (Sulu); *Everett, Ibis*, 1886, p. 524 (Island of Banguey); *Sharpe, Ibis*, 1888, p. 202 (Palawan) (?); *Everett, ibid.* p. 282; *Blasius, Ornis*, 1888, p. 316 (Palawan) (?); *Everett, P. Z. S.* 1889, p. 225; *id. Journ. of the Sts. Branch R. As. Soc.* 1889, p. 197 (partim ?); *Whiteh. Ibis*, 1890, p. 56 (Palawan); *Steere, List B. & M. Steere Exp.* p. 24 (Mindanao, Basilan) (1890).

Ptilopus bangueyensis, *Meyer, J. f. O.* 1891, p. 70 (Banguey).

Ptilopus purpureinucha, *Meyer, J. f. O.* 1891, p. 71 (Basilan).

Similar to *P. melanocephalus*, but the lemon-yellow gular spot *broader*. Length of the wing 4·71 inches, tail 3·14, bill 0·59, tarsus 0·74.

This, the most northern form of the *Spilotreron* group, is very nearly related to the most southern one, from which it is not easily distinguished. The slight purple tinge of the black occipital spot, on which Dr. Meyer relies to separate the Basilan bird, appears only in certain individuals, but is absent in the majority of specimens. As to the collar of the bird from Banguey, which is described as

whitish grey, I do not find that it is different from that of the specimens from other localities.

Hab. Philippines and Sulu Islands.

a. ♂ ad. sk.	Banguey.	A. H. Everett, Esq. [C.].
b–f. ♂ ♀ ad. sk.	Zamboanga, April (*A. H. Everett*).	Tweeddale Coll.
g–l. ♂ ♀ ad. et ♂ imm. sk.	Basilan, May, June (*A. H. Everett*).	Tweeddale Coll.
m. ♂ ad. sk.	Sulu Is. (*Burbidge*).	H. Veitch, Esq. [P.].

65. Ptilopus melanospilus.

Ptilinopus melanocephalus (part.), *Wall. P. Z. S.* 1862, p. 344; *id. Ibis*, 1865, p. 381; *Finsch, Neu-Guin.* p. 177 (1865); *Guillem. P. Z. S.* 1885, p. 269 (part., Celebes) 556; *Hartert, Kat. Vogel-samml. Mus. Senkenb.* p. 190 (part.) (1891).

Ptilopus melanocephalus (part.), *Schleg. N. T. D.* iii. p. 207 (1866); *id. Mus. P.-B.* pp. 28, 29 (Celebes) (1873); *Gieb. Thes. Orn.* iii. p. 365 (part.) (1877); *Tristr. (nec Forst.) Cat. Coll. B.* p. 44 (1889).

Iotreron melanocephalus (part.), *G. R. Gr. Hand-list*, ii. p. 226, sp. 9141 (1870); *Wald. Tr. Zool. Soc.* viii. p. 83, n. 118 (part.) (1872); *Tweedd. Orn. Works*, p. 183 (part.) (1881).

Jotreron melanospila, *Salvad. Ann. Mus. Civ. Gen.* vii. p. 671 (1875) (Celebes); *Meyer, Ibis*, 1879, p. 135; *Blas. J. f. O.* 1883, p. 138; *Heine & Rchnw. Nomencl. Mus. Hein. Orn.* p. 280 (1890).

Ptilinopus melanocephalus, var. celebensis, *Brügg. Abh. naturw. Ver. Brem.* v. p. 80 (1876); *Salvad. Ibis*, 1876, p. 385.

Jotreron melanocephala, *Lenz (nec Gm.), J. f. O.* 1877, p. 377 (Celebes).

Iotreron melanospila, *Salvad. Ibis*, 1876, p. 385.

Ptilopus melanospilus, *Elliot, P. Z. S.* 1878, p. 552 (Celebes); *Blas. Zeitschr. f. ges. Orn.* ii. p. 303 (1885), iii. p. 131 (1886); *Meyer, J. f. O.* 1891, p. 70; *Elliot, Auk*, 1892, p. 81.

Ptilinopus celebensis, *Schneid. Cat.* p. 21 (1878).

Very similar to *P. melanocephalus*, but chin and throat of a yellow-orange colour.

Hab. Celebes and Togian Islands.

a. ♂ ad. sk.	Celebes.	Tweeddale Coll.
b. ♂ ad. sk.	Menado, N. Celebes.	Tweeddale Coll.
c. ♂ ad. sk.	Menado, N. Celebes (*Wallace*).	Gould Coll.
d. ♂ ad. sk.	Togian Isl. (*A. B. Meyer*).	Tweeddale Coll.
e. Skeleton.	Menado, N. Celebes.	Dr. A. B. Meyer [C.].

66. Ptilopus chrysorrhous.

Ptilonopus melanocephalus, var., *Wall. P. Z. S.* 1862, p. 344.

Ptilonopus melanocephalus (part.), *Wall. Ibis*, 1865, p. 381; *Finsch, Neu-Guin.* p. 177 (part.) (1865).

Ptilopus melanocephalus (part.), *Schleg. N. T. D.* iii. p. 207 (1866); *id. Mus. P.-B.* Columbæ, p. 28 (1873) (part., Sula & Ceram); *Rosenb. Malay. Archip.* p. 323 (1879).

Iotreron melanocephalus (part.), *G. R. Gr. Hand-list*, ii. p. 226, n. 9141 (1870).
Iotreron melanocephala (part.), *Wald. Tr. Zool. Soc.* viii. p. 83 (1872).
Jotreron chrysorrhoa, *Salvad. Ann. Mus. Civ. Gen.* vii. p. 671 (Sula & Ceram) (1875); *Heine & Rchnw. Nomencl. Mus. Hein. Orn.* p. 280 (1890).
Ptilinopus sulaënsis, *Brügg. Abh. naturw. Ver. Brem.* v. p. 81 (1876); *Salvad. Ibis*, 1876, p. 385.
Ptilopus chrysorrhous, *Salvad. Ann. Mus. Civ. Gen.* ix. p. 196, n. 9 (1876); *Elliot, P. Z. S.* 1878, p. 553; *Salvad. P. Z. S.* 1879, p. 63; *id. Orn. Pap. e Mol.* iii. p. 51 (1882).
Iotreron chrysorrhoa, *Salvad. Ibis*, 1876, p. 385.

Similar to *P. melanocephalus*, but with the black spot on the occiput and nape smaller, the spot on the chin and throat yellow-orange, as in *P. melanospilus*, and the vent and short under tail-coverts of a deeper orange.

Hab. Sula Islands and Ceram.

a. ♂ ad. sk.	Sula Isl. (*Wallace*).	H. Seebohm, Esq. [P.].
b. ♂ ad. sk.	Sula Isl. (*Wallace*).	Salvin-Godman Coll.
c, *d*, *e*. ♂ ♀ ad. sk.	Sula Isl.	Wallace Coll.
f. ♂ ad. sk.	Sula Isl. (*Wallace*).	Gould Coll.
g. ♀ ad. sk.	Sula Isl. (*Wallace*).	Tweeddale Coll.
h. ♂ ad. sk.	Sula Isl.	Purchased.

67. Ptilopus xanthorrhous.

Ptilopus melanocephalus (part.), *Schleg. N. T. D.* vii. p. 207 (1866) (Sanghir); *id. Mus. P.-B.* Columbæ, pp. 28, 29 (1873) (Sanghir).
Iotreron melanocephala (part.), *Wald. Tr. Zool. Soc.* viii. p. 83 (1872); *Tweedd. Orn. Works*, p. 183 (part.) (1881).
Jotreron xanthorrhoa, *Salvad. Ann. Mus. Civ. Gen.* vii. p. 671 (1875) (Sanghir); *id. Ibis*, 1876, p. 385; *Blas. J. f. O.* 1883, pp. 120, 160, 162; *id. Zeitschr. f. g. Orn.* 1885, pp. 304, 305.
Ptilinopus nuchalis, *Brügg. Abh. naturw. Ver. Brem.* v. p. 80 (1876); *Salvad. Ibis*, 1876, p. 385; *Blas. J. f. O.* 1883, p. 160.
Ionotreron xanthorrhoa, *Salvad. Ann. Mus. Civ. Gen.* ix. p 61 (1876); *Meyer, SB. u. Abh. Ges. Isis*, 1884, Abh. i. p. 6.
Jotreron xanthorrhoa, *Salvad. Ibis*, 1876, p. 385.
Ptilopus xanthorrhous, *Elliot, P. Z. S.* 1878, p. 553; *Salvad. Orn. Pap. e Mol.* iii. p. 52 (1882); *Blas. Ornis*, iv. pp. 613, 642 (1888); *Meyer, J. f. O.* 1891, p. 70.

Similar to *P. melanocephalus*, but larger; black spot on the occiput and nape broad; spot on chin and throat pale yellow; vent and short under tail-coverts deep orange: "feet cherry-red; irides yellow; bill yellow-green" (*Platen*). Total length 11·6 inches, wing 5·50 to 5·11, tail 3·74, bill 0·68 to 0·57.

Female. "General plumage green; bill brown-black; irides yellow-green; feet cherry-red" (*Blasius*).

Hab. Sanghir Islands.

a, *b*, *c*. ♂ ♀ ad. sk.	Sanghir Isl. (*A. B. Meyer*).	Tweeddale Coll.
d, *e*. ♂ ♀ ad. sk.	Sanghir Isl. (*A. B. Meyer*).	Salvin-Godman Coll.
f. ♂ ad. sk.	Siao, Sanghir Isl., Oct. (*Hoedt*).	Tweeddale Coll.

μ. Ionotreron.

Type.

Jotreron, *Bp. Consp. Av.* ii. p. 24 (1854); *id. Compt. Rend.* xxxix. p. 878 (1854) ..... P. ionogaster.
Iotreron, *Bp. Icon. Pig., Introd.* p. 8 (1857).
Ionotreron, *Rchb. Tauben*, i. p. 99 (1862).

Range. Moluccas and Papuan Islands from Bouru to the Solomon Islands.

Key to the Species.

a. A purple-red patch either on the crop-region or on the abdomen.
  a'. Purple-red patch on the abdomen; under tail-coverts bright yellow.
    a''. Smallest of all the *Treronidæ*; wing 3·5 inches: wings banded with yellow; a grey band on each side of the upper breast ..... *nanus* ♂, p. 147.
    b''. Larger; wing 5·25 inches: head entirely grey ..... *ionogaster* ♂ ♀, p. 148.
  b'. Purple-red patch on the throat and crop-region; under tail-coverts pale yellow, green on the inner webs.
    c''. A small purple-red patch in the middle of crop-region ..... *pectoralis* ♂, p. 149.
    d''. Red patch on the crop broad, but not extended to the throat, which has a golden tinge; smaller upper wing-coverts with grey spots ..... *salvadorii* ♂, p. 150.
    e''. A broad purple-red patch covering the throat and crop-region.
      a'''. Anterior part of the head grey.
        a^4. Purple-red patch not surrounded by a dark purple line.
          a^5. Purple-red patch darker ..... *viridis* ♂ ♀, p. 151.
          b^5. Purple-red patch brighter..... *musschenbroeki* ♂ ♀, p. 152.
        b^4. Purple-red patch surrounded by a dark purple line ..... *lewisii* ♂ ♀, p. 153.
      b'''. Head white; purple-red patch surrounded by a dark purple line .... *eugeniæ* ♂ ♀, p. 153.
b. No purple-red patch either on the crop-region or on the abdomen.
  c'. Very small; wing 3·5: under tail-coverts bright yellow ..... *nanus* ♀, p. 147.
  d'. Under tail-coverts pale yellow, green on the inner webs.
    f'. Tertials with grey spots ..... *pectoralis* ♀, p. 149.
    g''. Tertials uniform green..... *musschenbroeki* ♀, p. 152.

68. Ptilopus nanus.

Columba naina (*errore pro* nana), *Temm. Pl. Col.* 5C4 (livr. 95, 1835); *Knip & Prév. Pig.* ii. pl. 59 (1838–43).

Ptilinopus nanus, *Less. Compl. de Buff.* viii. *Ois.* p. 30 (1837); *id.* 2nd ed. p. 277 (1838).

Columba nana, *Temm. Pl. Col.* i. *Tabl. Méth.* p. 80 (1840); *Müll. Verh. Land- en Volkenk.* p. 22 (1839–44).

Ptilonopus naina, *G. R. Gr. Gen. B.* iii. p. 467, n. 12 (1844); *Sclat. Journ. Pr. Linn. Soc.* ii. p. 167, n. 135 (1858).

Ptilopus nanus, *Bp. in litt.* (*Consp. Av.* ii. p. 25) (1854); *Schleg. Dierent.* fig. p. 210 (1864); *id. Mus. P.-B.* Columbæ, p. 21 (1873); *Salvad. Ann. Mus. Civ. Gen.* ix. p. 196, n. 7 (1876); *Gieb. Thes. Orn.* iii. p. 366 (1877); *D'Alb. Sydn. Mail*, 1877, p. 248; *id. Ann. Mus. Civ. Gen.* x. pp. 18, 19, 20 (1877); *Elliot, P. Z. S.* 1878, p. 550; *Salvad. P. Z. S.* 1879, p. 63; *Rosenb. Malay. Archip.* pp. 396, 561 (1879); *D'Alb. & Salvad. Ann. Mus. Civ. Gen.* xiv. p. 115 (1879); *D'Alb. Nuova Guinea*, pp. 310, 503, 588 (1880); *Salvad. Orn. Pap. e Mol.* iii. p. 53 (1882); *Nehrk. J. f. O.* 1885, p. 34; *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 53 (*Agg. Orn. Pap. e Mol.* p. 179) (1891).

Jotreron nana, *Bp. Consp. Av.* ii. p. 25 (1854); *id. Compt. Rend.* xxxix. p. 878 (1854), xl. p. 217, n. 57; *id. Coup d'œil Ordr. Pig.* pp. 10, 54, n. 57 (1855).

Ptilonopus nainus, *G. R. Gr. P. Z. S.* 1858, p. 195; *id. Cat. B. New Guin.* p. 60 (1859).

Ptilonopus nanus, *G. R. Gr. Cat. B. New Guin.* p. 46 (1859); *id. P. Z. S.* 1861, p. 437; *Wall. Ibis*, 1865, p. 381, n. 42; *Finsch, Neu-Guin.* p. 177 (1865); *Wall. J. f. O.* 1866, p. 279, n. 42; *Gould, B. of New Guin.* pt. ii. pl. 12 (1876); *Salvad. Ann. Mus. Civ. Gen.* ix. p. 43 (1876).

Ionotreron nana, *Rchnb. Tauben*, p. 100, sp. 235, t. 239. f. 1330 (1862).

Iotreron nana, *Rosenb. J. f. O.* 1864, p. 132, n. 219; *G. R. Gr. Hand-list*, ii. p. 226, n. 9145 (1870).

Ptilopus nana, *Rams. Pr. Linn. Soc. N. S. W.* iv. p. 470 (1879) (S.E. New Guin.).

Jotreron nanus, *Heine & Rchnw. Nomencl. Mus. Hein. Orn.* p. 280 (1890) (Waigiou !).

Adult male. General plumage bronzy green; a large band of grey on each side of the breast; a purple patch on the centre of the abdomen; vent and under tail-coverts yellow; thighs green, edged with whitish; wings green; quills shining green, primaries darker, inner secondaries and posterior scapulars with a slight bluish tinge; secondaries, middle and greater wing-coverts, and posterior scapulars edged with yellow; tail shining green above, grey, with paler tip, below: "bill pale green, or grey; feet dark carmine; irides greyish white" (*D'Albertis*). Total length 5·8 inches, wing 3·5, tail 1·75, bill 0·4, tarsus 0·5.

Female. Similar to the male, but wants the purple abdominal patch, and has the bill black.

Young. The feathers of the lower abdomen have broader yellow edges; also the upper tail-coverts are edged with yellow; the

inner secondaries have scarcely any bluish tinge; and there is no purple patch on the abdomen.

Hab. Southern and Central New Guinea, Mysol, and apparently also Salawatti.

a, b. ♂ ad. et ♀ imm. sk.	Salawatti, Aug.	Gould Coll.
c. ♂ ad. sk.	Mysol.	Wallace Coll.
d, e. ♂ ad. sk.	Fly River, N. Guinea, Sept. (*D'Albertis*).	Salvin-Godman Coll.
f. ♂ ad. sk.	S.E. New Guinea (*A. Goldie*).	Salvin-Godman Coll.

69. Ptilopus ionogaster.

Columba hyogastra, *Reinw. apud Temm. Pl. Col.* 252 (livr. 43, 1824); *Desm. Dict. Sc. Nat.* xl. p. 344 (1826); *Steph. Gen. Zool.* xiv. 1, p. 287 (1826).
Columba iogastra, *Wagl. Syst. Av.* Columba, sp. 34 (1827).
Carpophaga hyogastra, *Selb. Nat. Libr., Pigeons*, p. 119 (1835).
Ptilonopus hypogaster (!), *Sw. Class. B.* ii. p. 347 (1837).
Ptinilopus hyogaster, *Less. Compl. de Buff.* viii. *Ois.* p. 30 (1837); *id.* 2nd ed. p. 277 (1838).
Columba hyogaster (!), *Temm. Pl. Col. Tabl. Méth.* p. 80 (1840); *Prév. & Knip, Pig.* ii. pl. 54 (1838–43).
Ptilonopus hyogaster, *G. R. Gr. Gen. B.* ii. p. 466, n. 11 (1844); *Wall. Ibis*, 1860, p. 198, 1865, p. 381, n. 35.
Ptilinopus ionogaster, *Rchnb. Syn. Av.* Columbariæ, ff. 1332–33 (1847).
Jotreron hyogastra, *Bp. Consp. Av.* ii. p. 23 (1854); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 9 (1873).
"Treron jonogaster, *Rchnb.*," *Bp.* (errore) *l. c.*
Jotreron hyogaster, *Bp. Compt. Rend.* xxxix. p. 878 (1854); *id. Coup d'œil Ordre Pig.* p. 10 (1855).
Jotreron iogastra, *Bp. Compt. Rend.* xl. p. 217, n. 56; *id. Coup d'œil Ordre Pig.* p. 55, n. 56 (1855).
Ionotreron ionogastra, *Rchnb. Tauben*, i. p. 100, n. 234, t. 239. ff. 1332–33 (1862).
Ptilonopus iogaster, *G. R. Gr. P. Z. S.* 1860, p. 359; *Finsch, Neu-Guin.* p. 177 (1865); *Wall. J. f. O.* 1866, p. 279.
Iotreron hyogaster, *G. R. Gr. Hand-list*, ii. p. 226, n. 9144 (1870).
Columba hypogastra, *Wald. Tr. Zool. Soc.* viii. p. 83 (1872).
Ptilopus iogaster, *Schleg. Mus. P.-B.* Columbæ, p. 20 (1873); *Elliot, P. Z. S.* 1878, p. 558; *Rosenb. Malay. Archip.* p. 407 (1879); *Tristr. Cat. Coll. B.* p. 44 (1889).
Ptilopus hyogaster, *Rosenb. Reist. naar de Geelvinkb.* p. 8 (1875).
Ptilopus ionogaster, *Salvad. Ann. Mus. Civ. Gen.* ix. p. 196, n. 8 (1876); *Gieb. Thes. Orn.* iii. p. 365 (1877); *Salvad. Orn. Pap. e Mol.* iii. p. 54 (1882); *Pleske, Bull. Ac. Pétersb.* xxix. p. 534 (1884); *Guillem. P. Z. S.* 1885, p. 575; *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 53 (*Ayg. Orn. Pap. e Mol.* p. 179) (1891).
Jotreron iogaster, *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 280 (1890).

Adult male. General plumage, neck, and occiput bronze-green; head (except occiput) and chin grey; abdomen purple; vent and under tail-coverts bright yellow; wings green; upper scapulars

and median wing-coverts grey, tipped with green; primaries shining green, secondaries slightly edged with yellow; wings underneath lead-colour; under wing-coverts grey, tinged with green; first primary narrowing gradually towards the tip; tail green, with an interrupted apical grey bar, this not reaching the edge of the outer web of the lateral rectrices; tail below dark grey, with a light grey apical band: "bill bluish white, tip yellow; feet lilac-purple" (*Wallace*). Total length about 9 inches, wing 5·25, tail 3, bill 0·58, tarsus 0·75.

Female. Apparently like the male.

Hab. Halmahera group and Batchian.

a, *b*. Ad. sk.	Gilolo, Halmahera.	Wallace Coll.
c. ♂ ad. sk.	Gilolo (*Wallace*).	Gould Coll.
d. Ad. sk.	E. Gilolo.	Wallace Coll.
e, *f*. ♂ ad. sk.	Batchian.	Wallace Coll.
g. ♂ ad. sk.	Batchian (*Wallace*).	Gould Coll.
h. Ad. sk.	Batchian.	Salvin-Godman Coll.

70. Ptilopus pectoralis.

Columba cyanovirens, *Less. Voy. Coq., Atlas*, pl. 42. f. 2 (*nec* f. 1) (1826).

Columba cyanovirens ♀, *Less. Voy. Coq., Zool.* i. 2, p. 713 (1828); *id. Man. d'Orn.* ii. p. 169 (part.) (1828).

Columba pectoralis, *Wagl. Isis*, 1829, p. 740.

Columba virens, *Less. Tr. d'Orn.* p. 471 (1831); *id. Compl. de Buff.* viii. *Ois.* p. 29 (1837); *id.* 2nd ed. p. 277 (1838).

Columba viridis, jun., *Müll. Verh. Land- en Volkenk.* p. 22 (1839–44).

Ptilonopus virens, *G. R. Gr. Gen. B.* ii. p. 467, n. 14 (1844); *id. P. Z. S.* 1858, p. 195; *id. Cat. B. New Guin.* p. 60 (1859); *id. P. Z. S.* 1861, p. 437; *Wall. Ibis*, 1865, p. 382, n. 44; *id. J. f. O.* 1866, p. 279, n. 44.

Ptilonopus pectoralis, *G. R. Gr. Gen. B.* iii. App. p. 23 (1849); *Finsch, Neu-Guin.* p. 177 (1865); *Becc. Ann. Mus. Civ. Gen.* vii. p. 715 (1854); *Salvad. ibid.* p. 785 (1875).

Omeotreron virens, *Bp. Consp. Av.* ii. p. 27 (1854); *id. Compt. Rend.* xxxix. p. 879 (1854); *id. Coup d'œil Ordre Pig.* p. 11 (1855).

Omeotreron pectoralis, *Bp. Compt. Rend.* xl. p. 217, n. 62; *id. Coup d'œil Ordre Pig.* p. 55, n. 62 (1855); *Rosenb. N. T. N. I.* xxv. p. 249, n. 221 (1863); *id. J. f. O.* 1864, p. 132, n. 221.

Ptilonopus viridis, *Sclat.* (*nec Linn.*) *Journ. Pr. Linn. Soc.* ii. p. 167 n. 131 (1858); *G. R. Gr. P. Z. S.* 1858, p. 195; *id. Cat. B. New Guin.* pp. 45, 60 (1859); *id. P. Z. S.* 1861, p. 437; *Finsch, Neu-Guin.* p. 177 (part.) (1865).

Ptilonopus roseipectus, *G. R. Gr. P. Z. S.* 1861, pp. 432, 437; *Rchb. Tauben*, ii. p. 191, n. 223 (1862); *Finsch, Neu-Guin.* p. 177 (1865); *Wall. Ibis*, 1865, p. 381, n. 41; *id. J. f. O.* 1866, p. 279, n. 41.

Ionotreron viridis, juv., *Rchnb. Tauben*, i. p. 99, n. 231, t. 238. f. 1325 (1862).

Jotreron viridis, *Rosenb.* (*nec Linn.*) *N. T. N. I.* xxv. p. 248, n. 217 (1863); *id. J. f. O.* 1864, p. 137, n. 217.

Ptilopus pectoralis, *Schleg. N. T. D.* iii. p. 208 (1866), iv. p. 24 (1871); *id. Mus. P.-B.* Columbæ, p. 23 (1873); *Salvad. Ann. Mus. Civ. Gen.* ix. p. 195, n. 4 (1876); *Meyer, Rowl. Orn. Misc.* iii.

p. 114 (1878); *Elliot, P. Z. S.* 1878, p. 559; *Salvad. P. Z. S.* 1879, p. 64; *Rosenb. Malay. Archip.* pp. 396, 561 (1879); *Salvad. Orn. Pap. e Mol.* iii. p. 60 (1882); *Nehrk. J. f. O.* 1885, p. 34 (Waigiou); *Guillem. P. Z. S.* 1885, p. 659; *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 54 (*Agg. Orn. Pap. e Mol.* p. 180) (1891).

Iotreron pectoralis, *G. R. Gr. Hand-list*, ii. p. 226, n. 9139 (1870); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 280 (1890).

Ptilopus viridis (part.), *Gieb. Thes. Orn.* iii. p. 369 (1877).

Adult male. General colour bronzy green; sinciput, lores, anterior part of cheeks, and chin greenish grey; a red-purple patch in the middle of the breast; vent and under tail-coverts yellowish white, the latter with greenish stripes on the inner web; wings green, quills brighter with a bluish tinge; secondaries and greater wing-coverts with narrow pale yellow edges; the innermost greater wing-coverts grey, edged with green; under surface of the wing lead-colour, the under wing-coverts tinged with greenish; first primary narrowing gradually towards the tip; tail above green with an apical band greyish green; tail below dark grey, with a light grey band at the end: "bill orange; feet red; iris yellow" (*Wallace*). Total length about 8 inches, wing 4·5, tail 2·35, bill 0·5, tarsus 0·62.

Female. Differs from the male in wanting the purple-red patch on the breast, which is entirely green.

Young. Like the female.

Hab. Western New Guinea and the adjoining islands of Waigiou, Gagie, Guebeh, Mysol, and Koffiao.

The female of this species is very little different from that of *P. musschenbroeki*, which is somewhat smaller and seems to have the greyish-green tinge on the face a little darker.

a. ♀ ad. sk.	New Guinea (*Wallace*).	Gould Coll.
b. ♂ ad. sk.	New Guinea.	Tweeddale Coll.
c, d. ♂ ♀ ad. sk.	Amberbaki, N.W. New Guinea, April.	Salvin-Godman Coll.
e. ♂ ad. sk.	Waigiou.	Purchased.
f. ♀ ad. sk.	Waigiou (*Wallace*).	Gould Coll. (One of the types of *P. roseipectus*, Gr.)
g. ♂ ad. sk.	Gagie Is.	Wallace Coll. (One of the types of *P. roseipectus*, Gr.)
h. ad. sk.	Waigama, Mysol, Sept. (*Wallace*).	Gould Coll.
i–m. ♂ ♀ ad. sk.	Mysol.	Wallace Coll. (Types of *P. roseipectus*, Gr.)
n. ♂ ad. sk.	Mysol (*Wallace*).	Gould Coll.
o. ♂ ad. sk.	Mysol.	Salvin-Godman Coll.
p. ♂ ad. sk.	Mysol.	Tweeddale Coll.

71. Ptilopus salvadorii.

Ptilopus salvadorii, *Rothsch. Bull. Brit. Orn. Club*, iii. p. x (1892).

Similar to *P. musschenbroeki* and *P. pectoralis* and intermediate between the two; it has the red spot on the crop-region broader than in the latter, but more restricted than in the first, and of a

different shape, being cut in a straight line below and of a crescentic shape on the upper margin, above which, on the throat, there is a golden tinge, wanting in the two allied species; marginal upper wing-coverts with grey spots: bill and feet in dry skins yellowish. Total length about 7·5 inches, wing 4·5, tail 2·3, bill 0·53, tarsus 0·75. (*Rothschild Coll.*)

I have seen in the Rothschild Collection three specimens, which I recognized at once as belonging to an undescribed species.

Hab. Jobi.

72. Ptilopus viridis.

Turtur viridis amboinensis, *Briss. Orn.* i. p. 152, n. 43, t. 15. f. 2 (1760).

Columba viridis, *Linn. S. N.* i. p. 283, n. 23 (1766); *Gm. S. N.* i. p. 780, n. 23 (1788); *Lath. Ind. Orn.* ii. p. 609, n. 158 (1790); *Bonn. Enc. Méth.* i. p. 237 (1790); *Temm. & Knip, Pig.* i. pl. 17 (1808–11); *Temm. Pig. et Gall.* i. p. 472 (1813); *Vieill. N. D.* xxvi. p. 380 (1818); *Steph. Gen. Zool.* xi. 1, p. 65 (1819); *Desm. Dict. Sc. Nat.* xl. p. 376 (1826); *Wagl. Syst. Av.* Columba, sp. 81 (1827); *Eyd. & Gerv. Mag. de Zool.* 1836, pl. 76 (Bourou); *iid. Voy. de la Favor.* v. 2, p. 60, pl. 24 (1839); *Temm. Pl. Col. Tabl. Méth.* p. 81 (1840); *Prév. & Knip, Pig.* ii. pl. 17 (1838–43).

La Tourterelle à gorge pourprée d'Amboine, *D'Aubent. Pl. Enl.* 142.

Turvert (part.), *Buff. Hist. Nat. Ois.* ii. p. 555 (1771).

Columba asiatica, *P. L. S. Müll. Syst. Nat. Suppl.* p. 133 (1776); *Cass. Pr. Ac. Philad.* 1864, p. 248.

Green Turtle, *Lath. Gen. Syn.* ii. 2, p. 653, n. 49 (1783).

Ptilinopus viridis, *Sw. Zool. Journ.* i. p. 473 (note) (1825); *Steph. Gen. Zool.* xiv. 1, p. 279 (1826).

Ptilonopus viridis, *G. R. Gr. Gen. B.* ii. p. 467, n. 15 (1844); *id. List Spec. B. Brit. Mus.* Columbæ, p. 6 (1856); *id. P. Z. S.* 1860, p. 360; *Wall. P. Z. S.* 1863, p. 34; *id. Ibis*, 1865, p. 381, n. 39; *Finsch, Neu-Guin.* p. 17 (1865); *Wall. J. f. O.* 1866, p. 279, n. 39; *Salvad. Ann. Mus. Civ. Gen.* viii. p. 383 (Bouru) (1876).

Jotreron viridis, *Bp. Consp. Av.* ii. p. 24 (1854); *id. Compt. Rend.* xxxix. p. 878 (1854), xl. p. 217, n. 53; *id. Coup d'œil Ordre Pig.* pp. 10, 55, n. 53 (1855); *Lenz, J. f. O.* 1877, p. 377; *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 280 (1890).

Ionotreron viridis (part.), *Rchnb. Tauben*, p. 99, n. 231, t. 237, ff. 1320–21 (1862).

Iotreron viridis, *G. R. Gr. Hand-list*, ii. p. 226, n. 9138 (1870).

Ptilopus viridis, *Schleg. De Dierent.* p. 210 (1864); *id. N. T. D.* iii. p. 346 (1866); *Rosenb. Reis naar de Zuidoostereil.* p. 100 (1867); *Schleg. Mus. P.-B.* Columbæ, p. 22 (1873); *Salvad. Ann. Mus. Civ. Gen.* ix. p. 195, n. 2 (1876); *Gieb. Thes. Orn.* iii. p. 369 (1877); *Elliot, P. Z. S.* 1878, p. 560; *Salvad. P. Z. S.* 1879, p. 64; *Rosenb. Malay. Archip.* pp. 323, 372 (Goram) (1879); *Rams. Pr. Linn. Soc. N. S. W.* iv. p. 73 (1879); *Salvad. Orn. Pap. e Mol.* iii. p. 57 (1882); *Blas. & Nehrk. Verh. z.-b. Ges. Wien*, 1882, p. 428; *Tristr. Cat. Coll. B.* p. 45 (1889); *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 54 (*Agg. Orn. Pap. e Mol.* p. 180) (1891).

Adult male. General plumage bronzy green; face and upper part of throat grey; lower part of throat and upper part of breast deep red-

purple; vent and under tail-coverts yellowish white, the latter with a green stripe on the inner webs; wings green, quills deeper with a bluish tinge; a lilac-grey patch on the smaller wing-coverts near the bend of the wing; innermost greater coverts grey edged with yellowish green; greater wing-coverts and secondaries edged with yellow; wings underneath lead-colour, under wing-coverts tinged with greenish; first primary narrowing gradually; tail bronzy green and tipped with a greyish-green band, the light tips edged with yellow; tail underneath dark grey, lighter at the base and with an apical grey band, tinged with yellow on the edges of the feathers: "feet pink-red; bill yellow, base red; orbits yellow; iris with inner ring yellow, outer red" (*Wallace*). Total length 9 inches, wing 4·75, tail 2·25, bill 0·54, tarsus 0·85.

Female. Like the male (*Wallace*).

Hab. Amboyna group—Amboyna, Goram, Ceram, Monawolka, Harouko, Bouru.

a. ♀ ad. sk.	Bouru (*Wallace*).	Gould Coll.
b. ♀ ad. sk.	Bouru.	Wallace Coll.
c. Ad. sk.	Bouru.	Salvin-Godman Coll.
d. ♀ ad. sk.	Bouru, Dec. (*H. O. Forbes*).	Salvin-Godman Coll.
e. ♂ ad. sk.	Amboyna, May (*H. O. Forbes*).	Tweeddale Coll.
f. Ad. sk.	Amboyna.	E. Wilson, Esq. [P.].
g–k. ♂ ad et imm. sk.	Ceram.	Wallace Coll.
l, m. Ad. sk.	Ceram (*Wallace*).	Gould Coll.
n. Ad. sk.	Goram.	Wallace Coll.
o. Imm. sk.	[Gagie Is.]	Wallace Coll.
p. Imm. st.	[Java.]	Purchased.

73. Ptilopus musschenbroeki.

Ptilopus musschenbroekii, *Rosenb. in litt.*; *Schleg. N. T. D.* iv. p. 23 (1871); *Rowley, Orn. Misc.* iii. p. 113, pl. 95 (1878); *Meyer, Rowl. Orn. Misc.* iii. p. 116 (1878); *Salvad. Ann. Mus. Civ. Gen.* ix. p. 195, n. 3 (1876); *id. Orn. Pap. e Mol.* iii. p. 59 (1882).

Ptilopus viridis, *stirps* geelvinkiana, *Schleg. N. T. D.* iv. p. 23 (1871).

Ptilopus viridis geelvinkianus, *Schleg. Mus. P.-B.* Columbæ, p. 23 (1873).

Ptilonopus musschenbroekii, *Beccari, Ann. Mus. Civ. Gen.* vii. p. 715 (1875).

Ptilopus geelvinkianus, *Elliot, P. Z. S.* 1878, p. 560; *Salvad. P. Z. S.* 1879, p. 65; *Rams. Pr. Linn. Soc. N. S. W.* iv. p. 73 (1879).

Ptilopus viridis, *Rosenb.* (*nec Linn.*) *Malay. Archip.* p. 561 (1879).

Adult male. Similar to the male of *P. viridis*, but smaller, with the face dark grey tinged with green, the purple-red colour of the lower throat and upper breast lighter, the grey patch on the smaller wing-coverts more extended, and the grey band at the end of the tail with no yellow edges: "bill yellow, base red; feet red; irides orange" (*Beccari*). Total length 8·25 to 8·75 inches, wing 4·25, tail 2·2 bill 0·55, tarsus 0·8.

Female. Differs from the male in having no red-purple colour on the lower throat and upper breast, which are green, like the rest of the underparts; also the grey patch on the smaller wing-coverts and the grey spots on the innermost greater wing-coverts are wanting.

Hab. The islands of Mafoor, Miosnom, Mysori, and Pulo-Manin in Geelvink Bay, and perhaps also the adjoining coast of New Guinea, near Andai and Dorey.

a. ♂ ad. sk.	[New Guinea] (*L. Laglaize*).	Tweeddale Coll.
b. ♂ ad. sk.	Mafoor, Geelvink Bay (*Meyer*).	Tweeddale Coll.
c. ♂ ad. sk.	Mafoor, Geelvink Bay.	Salvin-Godman Coll.

74. Ptilopus lewisii.

Ptilopus viridis, var., *Rams. Pr. Linn. Soc. N. S. W.* iv. p. 73 (1879); *id. Nature*, vol. xx. p. 125 (1879); *Salvad. Ibis*, 1880, p. 128; *Rams. Nature*, vol. xxiv. p. 239 (1881); *Tristr. Ibis*, 1882, p. 144, n. 76, p. 145; *Rams. ibid.* p. 473.

Ptilopus geelvinkianus, *Layard* (*nec Schleg.*), *Ibis*, 1880, p. 307.

Ptilopus eugeniæ ♀, *Rams. Journ. Linn. Soc., Zool.* xvi. p. 131 (1881); *Nature*, vol. xxiv. p. 239 (1881); *Salvad. Orn. Pap. e Mol.* iii. p. 56 (1882).

Ptilopus lewisii, *Rams. Pr. Linn. Soc. N. S. W.* vi. p. 724 (1881); *id. Nature*, vol. xxv. pp. 282, 355 (1882); *Salvad. Ann. Mus. Civ. Gen.* xviii. p. 427, n. 4 (1882); *id. Orn. Pap. e Mol.* iii. p. 556 (1882); *Rams. Pr. Linn. Soc. N. S. W.* vii. p. 38 (1882); *Rchnw. & Schal. J. f. O.* 1883, p. 404; *Sharpe in Gould's B. New Guin.* pt. xvii. pl. 3 (1884); *Grant, P. Z. S.* 1887, p. 332, 1888, p. 199; *Tristr. Cat. Coll. B.* p. 269 (1890); *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 54 (*Agg. Orn. Pap. e Mol.* p. 180) (1891); *Tristr. Ibis*, 1892, p. 298.

Adult. Very much like the male of *P. musschenbroeki*, from which it differs in having the face or fore part of the head verditer-grey, instead of dark grey tinged with green, and principally in having the purple-red colour of the lower throat and upper breast darker and surrounded by a narrow line of dull purple: "bill straw-yellow; legs dull red; iris orange" (*E. L. Layard*). "Total length 7·8 inches, wing 4·6, tail 2·3, bill 0·65, tarsus 0·5" (*Sharpe*).

Hab. Solomon Islands—Lango, Guadalcanar, Florida, Malayta, and Alu.

a. Ad. sk.	Solomon Is.	J. T. Cockerell, Esq. [P.].
b, c. ♂ ad. sk.	Alu, Solomon Is.	C. M. Woodford, Esq. [C.].

75. Ptilopus eugeniæ. (Plate V.)

Jotreron, sp., *Bp. Compt. Rend.* xli. p. 658 (ex Ins. Salomonis) (1855).

Iotreron eugeniæ, *Gould, P. Z. S.* 1856, p. 137; *Sclat. P. Z. S.* 1869, p. 118; *G. R. Gr. Hand-list*, ii. p. 226, n. 9140 (1870); *Schleg. N. T. D.* iv. p. 24 (1871).

Jotreron eugeniæ, *Bp. Compt. Rend.* xliii. p. 834 (1856); *id. Icon. Pig.* text of pl. 27. f. 1 (1857) *.

Ptilonopus eugeniæ, *G. R. Gr. List Spec. B. Brit. Mus.* Columbæ, p. 6 (1856); *id. Cat. B. Trop. Isl.* p. 39 (1859); *Wall. Ibis*, 1865, p. 381, n. 40; *id. J. f. O.* 1866, p. 272, n. 40; *Sclat. P. Z. S.* 1869, p. 124.

Ionotreron viridis, *Rchnb.* (*nec Linn.*) *Tauben*, ii. p. 179, n. 231 (1862).

Ptilopus eugeniæ, *Gieb. Thes. Orn.* iii. p. 363 (1877); *Salvad. Ann. Mus. Civ. Gen.* ix. p. 195, n. 5 (1876); *Elliot, P. Z. S.* 1878, p. 561; *Rams. Pr. Linn. Soc. N. S. W.* iv. p. 73 (1879), vi. p. 724 (1881); *id. Journ. Linn. Soc., Zool.* xvi. p. 131 (1881); *Nature*, vol. xxv. p. 355 (1882); *Tristr. Ibis*, 1882, pp. 139, 144, n. 72; *Salvad. Orn. Pap. e Mol.* iii. pp. 56, 556 (1882); *Rams. Proc. Linn. Soc. N. S. W.* vii. p. 38 (1882); *Sclat. P. Z. S.* 1883, p. 348; *Tristr. Cat. Coll. Birds*, p. 44 (1889); *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 53 (*Agg. Orn. Pap. e Mol.* p. 179) (1891).

Adult male. Head pure white; crop dark purple-red, surrounded by a dull purple band; breast greyish green; abdomen whitish; flanks green; under tail-coverts white, edged with yellow and with a longitudinal dull green band on the inner web; hind neck, back, rump, and upper tail-coverts bronze-green; wing bronze-green, the quills darker but brighter green; band on the smaller wing-coverts and spots near the tip of the tertials and their coverts light grey; tail above green, with a broad grey band tinged with green near the tip, beneath dark grey, with a broad pale grey band, nearly white at the tip: "iris red; bill yellowish; feet cherry-red" (*Richards*). Total length 8·64 inches, wing 4·9, tail 2·55, bill 0·55, tarsus 0·78.

Adult female. Like the male.

Young. "The young on leaving the nest have the chin and forehead only white and the rest of the head ashy, washed with green; the greater wing-coverts and the secondaries are margined on their outer webs with pale yellow; in other respects the plumage is like that of the adult." (*Ramsay.*)

Hab. Solomon Islands.

a.	Ad. sk.	Solomon Isl.	J. McGillivray, Esq. [P.]. (Type of species.)
b.	Ad. sk.	Ugi, Solomon Isl.	Tweeddale Coll.
c.	♀ ad. sk.	Ugi, Solomon Isl., Sept.	G. E. Richards, Esq. [C.].
d.	♀ ad. sk.	Ugi, Solomon Isl., Sept. (*G. E. Richards*).	Salvin-Godman Coll. †

* The plate to the text of this species is wanting in Bonaparte's 'Iconographie,' and seems never to have been published.

† PTILOPUS, sp.

Ptilopus eugeniæ, *De Vis* (*nec Gould*), *Ann. Rep. Brit. New Guin.* p. 62 (1890) (Ferguson Island); *id. Colon. Papers*, n. 103, p. 116 (1890); *id. Ibis*, 1891, p. 140; *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 53 (*Agg. Orn. Pap. e Mol.* p. 179) (1891).

I do not know to which species the above references should be assigned.

9. CHRYSŒNAS.

Type.

Chryssæna, *Bp. Consp. Av.* ii. p. 28 (1854) ..... C. luteovirens.
Chrysotreron, *Bp. in litt.* (*ibid.*).
Chrysœnas, *Bp. in litt.* (*ibid.*).
Chrysœna, *Bp. Compt. Rend.* xxxix. p. 879 (1854).

Range. Confined to the Fiji Islands.

Key to the Species.

a. Upper tail-coverts falling short of a third of an inch from the tip of the tail; feathers of the neck and back and also the upper wing-coverts narrow and long, of a greenish golden-yellow colour in the adult bird ..... *luteovirens*, p. 155.

b. Upper tail-coverts reaching the tip of the tail; feathers of the neck and back, and also the upper wing-coverts not narrow; feathers of the body and also the wing-coverts with long and not coalescent barbs; head of the adult birds golden greenish yellow.

a'. Inner webs of the quills yellow-orange; general colour of the adult male bird bright orange ..... *victor*, p. 157.

b'. Inner webs of the quills golden yellow; general colour of the adult bird green, the mantle with a golden tinge; under tail-coverts bright yellow ..... *viridis*, p. 158.

1. Chrysœnas luteovirens.

Colombe de Felicie, *Hombr. & Jacq. Voy. Pôle Sud*, pl. 12. f. 1 (1841) (juv.).
Colombe jaune, *Hombr. & Jacq. ibid.* pl. 12. f. 2 (1841) (ad.).
Columba luteovirens, *Hombr. & Jacq. Ann. Sc. Nat.* (2) xvi. p. 315 (1841) (ad.).
Columba felicia, *Hombr. & Jacq. ibid.* p. 316 (1841) (juv.).
Columba flava, "*H. & J.*", *G. R. Gr. Gen. B.* ii. p. 470, n. 33 (1844).
Calœnas gouldiæ, *Rchnb.* (*nec Gr.*) *Syn. Av.* ff. 1469–70 (1847); *Hartl. Arch. f. Naturg.* 1852, i. p. 134 (note).
Ptilinopus feliciæ, *Rchnb. Syn. Av.* Columbariæ, *Novit.* t. 245. f. 2589 (1851); *Hartl. Arch. f. Naturg.* 1852, i. p. 134; *id. J. f. O.* 1854, p. 169.
Callœnas flava, *Rchnb. Syn. Av. Novit.* t. 245. f. 2594 (1851).
Calœnas luteovirens. *Hartl. Arch. f. Naturg.* 1852, i. p. 134.
Ptinilopus feliciæ, *Jacq. & Pucher. Voy. Pôle Sud*, iii. p. 111 (1853).
Ptinilopus luteovirens, *Jacq. & Pucher. Voy. Pôle Sud*, iii. p. 112 (1853).
Omeotreron feliciæ, *Bp. Consp. Av.* ii. p. 27 (1854) (juv.); *id. Compt. Rend.* xxxix. p. 879 (1854), xl. p. 217, n. 63; *id. Coup d'œil Ordr. Pig.* pp. 11, 55, n. 63 (1855).
Chryssæna luteovirens, *Bp. Consp. Av.* ii. p. 28 (1854); *Rams. Pr. Linn. Soc. N. S. W.* i. p. 74 (1876).

Chryscena luteovirens, *Bp. Compt. Rend.* xxxix. p. 879 (1854), xl. p. 217, n. 66 (1855); *id. Coup d'œil Ordre Pig.* pp. 11, 55, n. 66 (1855); *id. Icon. Pig.* pl. 31 (1857); *Finsch & Hartl. Fauna Centralpol.* pp. 134, 279, t. ii. f. 4 (egg) (1867); *G. R. Gr. Hand-list*, ii. p. 226, n. 9137 (1870); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 9 (1873); *Finsch, P. Z. S.* 1873, p. 733 (note); *Layard, P. Z. S.* 1875, p. 436; *Finsch, P. Z. S.* 1875, p. 557; *id. Journ. Mus. Godeffr.* Heft xii. p. 10 (1876); *Schmeltz, ibid.* p. 171 (1876); *E. L. Layard, Ibis*, 1876, p. 392; *North, Pr. Linn. Soc. N. S. W.* (2) ii. p. 445 (1887) (eggs); *Hartert, Kat. Vogelsamml. Senck. Mus.* p. 190 (1891); *Rchnw. J. f. O.* 1891, p. 127; *Wiglesw. Aves Polynes.* p. 47 (1891).

Ptilonopus luteovirens, *G. R. Gr. Cat. B. Trop. Isl.* p. 38 (1859).

Chryscenas luteovirens, *Rchnb. Tauben*, i. p. 90, n. 204. t. 245. f. 2594, t. 263. ff. 1469–70 (1862), ii. p. 176, t. iii. f. 32 (juv.) (1862).

Ptilopus luteovirens, *Schleg. De Dierent.* p. 210 (1864); *id. Mus. P.-B.* Columbæ, p. 41 (1873); *Gieb. Thes. Orn.* iii. p. 365 (1877); *Elliot, P. Z. S.* 1878, p. 565; *Schmeltz, Verh. Ver. Hamb.* 1877 (1879), p. 179; *Tristr. Cat. Coll. B.* p. 44 (1889).

Adult male. Head olive-yellow; feathers of the neck, back, breast, and wing-coverts lanceolate and yellow, tinged with green; a yellow collar not very distinct between the head and the neck; feathers of the lower breast green with yellow edges; abdomen and under tail-coverts bright yellow; thighs yellowish green; upper wing-coverts yellowish green; quills yellowish green, with the outer edges and the inner web yellow; under wing-coverts bright yellow; tail yellowish green, with the inner web of the feathers edged with yellow: "bill blackish, with paler tip; feet grey-black; iris red" (*Hombron*), "yellow" (*Gräffe*). Total length about 8 inches, wing 4·6, tail 2·6, bill 0·5, tarsus 0·85.

Female. Green; feathers of the underparts edged with yellow; under tail-coverts dull olive-yellow, edged with yellow; quills brown, with narrow yellow outer edges, and with broad yellow edges towards the base of the inner webs; tail above bright green, underneath dull yellowish grey, the feathers brighter yellow towards the tip of the inner web: "iris buff; bill greenish horn; feet emerald-green" (*E. L. Layard*).

Young. Similar to the female, but with broader yellow edges to the feathers of the underparts, and with the under tail-coverts lighter.

Hab. Fiji Islands—Balaou, Ovalau, Viti Levu.

a, b. ♂ ad. et juv. sk.	Fiji Isl.	Cuming Coll.
c, d. ♂ ad. sk.	Fiji Isl.	Purchased.
e, f, g. ♂ ♀ ad. et ♂ juv. sk.	Levuka, Ovalau, July.	J. Brenchley, Esq. [P.].
h, i, k. ♂ ad. et ♂ ♀ juv. sk.	Ovalau, Oct., Nov. (*E. L. Layard*).	Tweeddale Coll.
l. ♂ juv. sk.	Ovalau, Oct. (*E. L. Layard*).	Salvin-Godman Coll.
m. ♂ ad. sk.	Rewa, Oct. (*E. L. Layard*).	Salvin-Godman Coll.
n, o. ♂ ♀ ad. sk.	Rewa, Nov. (*E. L. Layard*).	Tweeddale Coll.

2. Chrysœnas victor.

Chrysœna, sp., *Gräffe, J. f. O.* 1870, p. 418.
Chrysœna victor, *Gould, P. Z. S.* 1871, p. 642; *Finsch, P. Z. S.* 1873, p. 733; *Layard, P. Z. S.* 1875, pp. 30, 151, 437; *Finsch, P. Z. S.* 1875, p. 557; *Layard, Ibis*, 1875, p. 435; *Rowl. Orn. Misc.* i. p. 23, pl. xxxix. (1876); *Finsch, Journ. Mus. Godeffr.* Heft xii. p. 11 (1876); *Kleinschmidt, ibid.* p. 12 (1876); *Schmeltz, ibid.* p. 171 (1876); *Layard, Ibis*, 1876, pp. 139, 151, 388, 392; *Rams. Pr. Linn. Soc. N. S. W.* i. p. 74 (1876); *Layard, P. Z. S.* 1877, p. 464; *Finsch, P. Z. S.* 1877, p. 736; *Gieb. Zeitschr. f. ges. Naturw.* (3) ii. p. 229 (1877); *Nehrk. J. f. O.* 1879, p. 407 (egg); *Hartert, Kat. Vogelsamml. Senck. Mus.* p. 190 (1891); *Wiglesw. Aves Polyn.* p. 47, n. 245 (1891).
Chrysœna luteovirens, *E. Layard* (*nec H. & J.*), *P. Z. S.* 1875, p. 30.
Ptilopus victor, *Gieb. Thes. Orn.* iii. p. 369 (1877); *Elliot, P. Z. S.* 1878, p. 568; *Schmeltz, Verh. Ver. Hamb.* 1877 (1879), p. 180; *Tristr. Cat. Coll. B.* p. 45 (1889).
Chrysœnas victor, *Finsch, Voy. 'Challenger,' Birds*, p. 51, pl. xv. (1881).

Adult male. General plumage bright orange; head and throat olive-yellow, paler on the throat; quills and primary-coverts dull brownish yellow, with brighter yellow edges, shafts of the quills brown; inner web of the quills yellow-orange like the under wing-coverts; first primary not narrowed; tail short and nearly hidden by the upper tail-coverts, brownish orange, with the tips and outer edges of the lateral feathers orange: "iris yellow-buff; bill green; feet green" (*Layard*). Total length 7 inches, wing 4·25, tail 2·5, bill 0·5, tarsus 0·7.

Female. Head yellowish green, lighter upon the throat; entire plumage of body rich green; inner webs of primaries and secondaries broadly margined with orange; outer webs edged with the same colour; under tail-coverts orange, with the centre of the feathers green: bill black, tip yellow; feet black.

Young male. Similar to the female, but yellower on the head and more orange on the under tail-coverts.

Hab. Fiji Islands—Bua, Vanua Levu, Taviuni, Ngami, Lanthala.

a, b. ♂ ♀ ad. sk.	Bua, Fiji Isl., May (*C. L. Layard*).	Gould Coll.
c, d, e. ♂ ♀ ad. et juv. sk.	Bua, Fiji Isl., Dec. (*E. L. Layard*).	Tweeddale Coll.
f–o. ♂ ♀ ad. sk. et st.	Taviuni.	W. A. Bailward, Esq. [P.].
p, q. ♂ ad. sk.	Taviuni (*Liardet*).	Salvin-Godman Coll.
r, s. ♂ ♀ ad. sk.	Taviuni, April (*E. L. Layard*).	Salvin-Godman Coll.
t, u. ♀ ad. et ♂ imm. sk.	Taviuni, April, Nov. (*E. L. Layard*).	Tweeddale Coll.
v. ♂ ad. sk.	Taviuni, Aug. (*E. L. Layard*).	Rev. J. Whitmee [P.].
w. ♂ ad. sk.	Taviuni.	'Challenger' Exped.
x. ♂ ad. sk.	Lanthala (*E. L. Layard*).	Tweeddale Coll.
y, z. ♀ ad. et ♂ imm. sk.	Laucala, April (*E. L. Layard*).	Tweeddale Coll.

a'. ♀ ad. sk.	N'Dreketti (*E. L. Layard*).	Rev. J. Whitmee [P.].
b', *c'*. ♂ ad. sk.	Fiji.	A. B. Gordon, Esq. [P.].

3. Chryscenas viridis.

Chryscena luteovirens (part.), *Layard*, *P. Z. S.* 1875, p. 30; *Finsch*, *Journ. Mus. Godeffr.* Heft xii. pp. 10, 12 (part.) (1876).
Chryscena viridis, *Layard*, *P. Z. S.* 1875, p. 151 (Kandavu), p. 437; *id. Ibis*, 1876, pp. 153, 392; *Rams. Pr. Linn. Soc. N. S. W.* i. p. 75 (1876); *Schmeltz*, *Journ. Mus. Godeffr.* Heft xii. p. 171 (1876); *Finsch*, *P. Z. S.* 1877, p. 736; *Nehrk. J. f. O.* 1879, p. 407; *Wiglesw. Aves Polyn.* p. 47, n. 246 (1891).
Ptilopus layardi, *Elliot*, *P. Z. S.* 1878, p. 567; *Schmeltz*, *Verh. Ver. Hamb.* 1877 (1879), p. 179; *Tristr. Cat. Coll. B.* p. 44 (1889).
Chryscenas viridis, *Finsch*, *Voy.* '*Challenger*,' *Birds*, p. 5 pl. xvi. (1881).

Adult male. General plumage dark green, with a golden gloss upon back and breast; head and neck yellow with a greenish tinge; under tail-coverts bright yellow; thighs and vent grey; primaries edged with yellow on outer webs, and, together with the secondaries, having nearly all the inner webs golden yellow; the first primary is gradually narrowed towards the tip: "bill blue-black, tip pale livid; legs very dark crimson; iris yellowish" (*Layard*). Total length 7 inches, wing 4·5, tail 2·3, bill 0·10, tarsus 0·10.

Female. Green, with no golden gloss; under tail-coverts pale yellow; vent and lower abdomen grey, a feature which readily distinguishes the female of this species from that of the other two allied species.

Hab. Kandavu, Fiji Islands.

a–d. ♂ ad. sk.	Kandavu, Fiji Isl.	'Challenger' Exped.
e, *f*, *g*. ♂ ♀ ad. sk.	Kandavu, Sept. (*E. L. Layard*).	Tweeddale Coll.
h, *i*. Ad. et imm. sk.	Kandavu.	Salvin-Godman Coll.

10. DREPANOPTILA.

	Type.
Drepanoptila, *Bp. Compt. Rend.* xli. p. 658 (1855)	D. holosericea.
Drepanoptera (*errore?*), *Bp. Compt. Rend.* xliii. p. 948 (1856)	D. holosericea.
Calyptomenænas, *Verr. & Des Murs*, *Rev. et Mag. de Zool.* 1862, p. 135	D. holosericea.
Calyptomœnas, *Verr. & Des Murs*, *l. c.* pl. 8.	

Range. Confined to New Caledonia, with the Isle of Pines.

1. Drepanoptila holosericea.

Columba holosericea, *Temm. & Knip*, *Pig.* i. p. 73, pl. 32 (1808–11); *Temm. Hist. Nat. Pig.* pp. 269, 471 (1813); *Vieill. N. D.* xxvi. p. 369 (1818); *Steph. Gen. Zool.* xi. 1, p. 60 (1819); *Vieill. Enc. Méth.* i. p. 380 (1823); *Desm. Dict. Hist. Nat.* xl. p. 335 (1826);

Wagl. Syst. Av. Columba, sp. 25 (1827); *Less. Compl. de Buff., Ois.* viii. p. 40 (1837); *id. op. cit.* 2nd ed. p. 280 (1838).

Ptilonopus holosericeus, *G. R. Gr. Gen. B.* ii. p. 467, n. 19 (1844); *id. List B. Brit. Mus.* Columbæ, p. 8 (1856) (Isle of Pines); *id. P. Z. S.* 1859, p. 165; *id. Cat. B. Trop. Isl.* p. 39 (1859); *Finsch, P. Z. S.* 1874, p. 94.

Ptilinopus holosericeus, *Rchnb. Novit. Syn. Av.* Columbariæ, fig. 3365 (1851); *id. Syst. Av.* p. xxvi (1852); *Finsch & Hartl. Orn. Centralpol.* p. 131 (1862).

Lamprotreron holosericea, *Bp. Consp. Av.* ii. p. 18 (1854); *id. Compt. Rend.* xxxix. p. 876 (1854), xl. p. 216, n. 38 (1855); *id. Coup d'œil Ordr. Pig.* pp. 8, 54, n. 38 (1855); *Verr. & Des Murs, Rev. et Mag. de Zool.* 1862, p. 135; *Jouan, Mém. Soc. Sc. Nat. Cherb.* ix. p. 230 (1863).

Drepanoptila holosericea, *Bp. Compt. Rend.* xli. p. 658 (1855), xliii. p. 834 (1856); *Rchnb. Tauben*, i. p. 98, t. 236 B. f. 3365 (1862), ii. p. 179 (1862); *G. R. Gr. Hand-list*, ii. p. 227, n. 9156 (1870); *Marie, Act. Soc. Linn. Bord.* xxvii. p. 328 (1870); *id. Ibis*, 1877, p. 362; *Elliot, P. Z. S.* 1878, p. 513, f. 6 (wing); *E. L. Layard, Ibis*, 1880, p. 339 (gizzard), 1881, p. 172 (nest and eggs), 1882, pp. 527, 544; *Tristr. Cat. Coll. B.* p. 45 (1889); *Wiglesw. Aves Polynes.* p. 47 (1891).

Drepanoptera holosericea, *Bp. Compt. Rend.* xliii. p. 948 (1856).

Trygon holosericeus, *Rchb.(errore).Gray, List B. Brit. Mus.* Columbæ, p. 8 (*in syn.* P. holosericei) (1856).

Calyptomenænas holosericea, *Verr. & Des Murs, Rev. et Mag. de Zool.* 1862, p. 136; *Sousa, Mus. Nac. Lisboa*, Columbæ, p. 8 (1873).

Calyptomœnas holosericea, *Verr. & Des Murs, ibid.* pl. 8.

Ptilonopus sericeus (*errore*), *Rchnb. Tauben*, ii. p. 179, *in syn.* D. holosericeæ (1862).

Columba oceanica (*errore*), *Jouan, Mém. Soc. Sc. Nat. Cherb.* ix. p. 93 (1863).

Ptilopus holosericeus, *Schleg. Mus. P.-B.* Columbæ, p. 41 (1873); *Gieb. Thes. Orn.* iii. p. 364 (1877); *Tristr. Ibis*, 1879, p. 184.

Adult male. Green, with a slight golden tinge on the head; chin and gular stripe white; green of the breast separated from abdomen by two bands, a yellowish white followed by a black one; middle of the abdomen olive-yellow, changing into bright yellow on the vent and under tail-coverts; sides green; tarsal feathers white, soft and long; wing with several powdered grey bands, the first and the second on the median and greater wing-coverts, three others on the very long scapulars and tertials; on the upper tail-coverts again two powdered grey bands; primaries blackish, with the base of the outer webs powdered grey; secondaries bright green, the outer ones powdered with grey; under wing-coverts grey, those on the edge of the wing tinged with green; quills below grey at the base, darker at the tips; tail above bright green, below grey, with an apical lighter band: "bill dark green; feet and legs carmine; the iris varies with age, but may be described as crimson" (*Layard*). Total length about 10·5 inches, wing 6, tail 3·7, bill 0·62, tarsus 1·05.

Female. Much smaller and duller; the two bands below the breast, especially the light one, not very distinct; the yellow under.

wing-coverts are green in the middle towards the base. Total length about 10 inches.

Young. Resembles the female, but has the wing-coverts edged with yellow.

Hab. New Caledonia, with the Isle of Pines.

a. Ad. st.	Isle of Pines (*J. McGillivray*).	Voyage of H.M.S. 'Rattlesnake.'
b, *c*. Ad. st. et ♀ juv. sk.	New Caledonia.	Purchased.
d, *e*. ♂ ad. et juv. sk.	New Caledonia.	Tweeddale Coll.
f. ♀ ad. sk.	Dombea, New Caledonia, Nov. (*E. L. Layard*).	Tweeddale Coll.
g, *h*. ♂ ad. et ♀ imm. sk.	Dombea, New Caledonia, Nov. (*E. L. Layard*).	Salvin-Godman Coll.
i. ♂ ad. sk.	Moindou, New Caledonia, Oct. (*E. L. Layard*).	Tweeddale Coll.

11. ALECTRŒNAS.

	Type.
Alectrœnas, *G. R. Gr. List Gen. B.* p. 58 (1840).	A. nitidissima.
Alectorœnas, *Agass. Nomencl. Zool. Ind. Univ.* p. 13 (1846).	
Columbigallus, *Des Murs in Chenu, Enc. d'Hist. Nat., Ois.* vi. p. 31 (1854) *	A. nitidissima.
Furningus, *Des Murs in Chenu, Enc. d'Hist. Nat., Ois.* vi. p. 32 (1854)	A. madagascariensis.
Chlamydœna, *Bp. Ann. Sc. Nat.* (4) i. p. 139, n. 1646 (1854); *id. Consp. Av.* ii. p. 29 (1854).	
Chlamydœna, *Bp. Compt. Rend.* xxxix. p. 879 (1854)	A. nitidissima.
Funingus, *Bp. Consp. Av.* ii. p. 29 (1854).	
Erythrœna, *Bp. Consp. Av.* ii. p. 30 (1854)....	A. pulcherrima.
Erythrœna, *Bp. Compt. Rend.* xxxix. p. 880 (1854).	
Erythrotreron, *Bp.* (?) *Compt. Rend.* xxxix. p. 880 (1854) (= Erythrœna).	
Erythrolæma, *Bp.* (1854), *fide G. R. Gr. List B. Brit. Mus.* Columbæ, p. 9 (1856); *id. Hand-list*, ii. p. 227, gen. 2263 (1870).	

Range. Confined to the Madagascarian subregion.

Key to the Species.†

a. Tail blue, like the back; neck and breast grey

a'. Crown red ..... *pulcherrima*, p. 161.

* Bonaparte (Compt. Rend. xliii. p. 834) states that Lesson established the genus *Columbigallus* in 1837, but I have not been able to find where.

† ALECTRŒNAS ? RODERICANA.

Columba rodericana, *M.-E. Ann. Sc. Nat.* (5) xix. art. 3, p. 16, pl. 12. ff. 1, 1 *a*, 1 *b*, 1 *c* (sternum) (1874); *A. Newt. P. Z. S.* 1879, p. 4; *Günth. & E. Newt. Phil. Trans.* vol. 168. p. 430 (1879); *Shell. Ibis*, 1883, p. 258.

b'. Crown grey, like the rest of the head, neck, and breast ..... *sganzini*, p. 162.

b. Tail above red.

a''. Head light grey, nearly white, like the neck and breast..... *nitidissima*, p. 163.

b''. Head deep state-blue colour ..... *madagascariensis*, p. 164.

1. Alectrœnas pulcherrima.

Pigeon violet à tête rouge d'Antigue, *Sonner. Voy. Nouv. Guin.* p. 112, pl. 67 (1766).

Columba pulcherrima, *Scop. Del. Flor. et Faun. Insubr.* ii. p. 94, n. 98 (1776) (*ex Sonnerat*).

Red-crowned Pigeon, *Lath. Syn.* ii. 2, p. 628, n. 17 (1783).

Columba rubricapilla, *Gm. S. N.* i. 2, p. 784, n. 62 (1788); *Lath. Ind. Orn.* ii. p. 599, n. 19 (1790); *Temm. & Knip, Pig.* i. pl. 20 (1808–1811); *Temm. Pig. et Gallin.* i. pp. 233, 464 (1813); *Vieill. N. D.* xxvi. p. 369 (1818); *Steph. Gen. Zool.* xi. 1, p. 11 (1819); *Desm. Dict. Sc. Nat.* xl. p. 329 (1826); *Wagl. Syst. Av.* Columba, sp. 24 (1827); *Less. Tr. d'Orn.* p. 470 (1831); *id. Compl. de Buff., Ois.* viii. p. 94 (1837); *id. op. cit.* 2nd ed. p. 295 (1838).

Columba rubrocapillata, *Bonn. Enc. Méth.* i. p. 234, pl. 77. f. 4 (1790).

Ptilinopus pulcherrimus, *G. R. Gr. List B. Brit. Mus.* Gallinæ, p. 1 (1844); *id. Gen. B.* ii. p. 467, n. 23 (1844); *id. List B. Brit. Mus.* Columbæ, p. 9 (1856).

Carpophaga rubricapilla *Rchnb. Tauben, Novitiæ*, n. vi. p 1, t. 230 *b*. f. 3361 (Oct. 1851).

Janthœnas rubricapilla, *Rchnb. Syst. Av.* p. xxv (1852).

Ptilopus rubricapillus, *Licht. Nomencl.* p. 82 (Bengal!) (1854).

Erythræna pulcherrima, *Bp. Consp. Av.* ii. p. 30 (1854); *Rchnb. Tauben*, i. p. 131 (1862).

Erythrœna pulcherrima, *Bp. Compt. Rend.* xxxix. p. 880 (1854), xl. p. 217, n. 70 (1855); *id. Coup d'œil Ordr. Pig.* pp. 12, 55, n. 70 (1855); *Hartl. J. f. O.* 1860, p. 112; *id. Orn. Beitr. Faun. Madag.* p. 65 (1861); *Pollen, N. T. D.* i. p. 318 (1863); *E. Newt. Ibis*, 1867, pp. 337, 345, 356, 359, 360; *Oust. Bull. Soc. Philom.* (7) i. p. 101 (1877).

? Alectrœnas nitidissima, *E. Newt.* (*nec Scop.*) *Ibis*, 1862, p. 196 (Seychelles); *Rchnb. Tauben*, ii. p. 186 (1862).

Ptilopus pulcherrimus, *Schleg. De Dierent.* p. 211 (1864); *id. Mus. P.-B.* Columbæ, p. 44 (1873); *Gieb. Thes. Orn.* iii. p. 367 (1877).

? Turtur picturatus, *M.-E. Ann. Sc. Nat.* (5) xix. art. 3, p. 14 (1874); *Günth. & E. Newt. Phil. Trans.* vol. 168, p. 430 (1879).

Known from a single sternum described by Prof. Milne-Edwards and from limb-bones described by Dr. Günther and Sir E. Newton. The "sternum is so different from that of other members of this family (as far as they are known), that we cannot refer it at present to any particular genus" (*Günther and E. Newton*).

It was a native of Rodriguez, and Capt. Shelley says that it probably belonged to the genus *Alectrœnas*.

a. Several bones to which the observations of Dr. Günther and E. Newton refer (*l. c.*).	Rodriguez.	Transit of Venus Exp.

Erythrœnas pulcherrima, *Sclat. P. Z. S.* 1835, p. 318 (living specimens); *E. Newt. P. Z. S.* 1867, p. 344; *Garrod, P. Z. S.* 1875, p. 368; *Sclat. List Vert. An.* 8th ed. p. 444 (1883).
Erythrolæma pulcherrima, *G. R. Gr. Hand-list*, ii. p. 227, n. 9163 (1870).
Alectrœnas pulcherrima, *Hartl. Vög. Madag.* p. 264 (1877); *Shell. Ibis*, 1883, p. 260.
Funingus pulcherrimus, *Oust. Bull. Soc. Philom.* (7) ii. p. 176 (1878).
Alectrœnas pulcherrima, *A. Newt. P. Z. S.* 1879, p. 4.
Alectrœnas pulcherrimus, *Tristr. Cat. Coll. B.* p. 43 (1889).

Adult male. Black, with blue reflections, especially upon the back and upper wing-coverts; feathers of the crown hairy and carmine; sides of the head, neck, upper back, and upper breast grey, darkest on the ear-coverts, the grey feathers long and acuminate; vent and under tail-coverts yellowish white, the latter with longitudinal dark green spots on the inner webs; wings and tail black; naked skin round the eyes, lores, and wattles on the sides of the forehead naked and red: iris red; bill dusky black, with the tip whitish; feet greyish olive. Total length 9·25 inches, wing 6·15, tail 3·5, bill 0·7, tarsus 1.

Female. Like the male.

Young. Upper parts blackish green, the feathers edged with yellow; underparts dark grey; vent and under tail-coverts white, the latter black along the middle part.

Hab. Seychelles Islands—Mahé, Silhouette, Praslin, Marianne, and Felicité.

a, b, c. Ad. st.		Zoological Society's Coll.
d. Imm. sk.	[Isl. of Panay.]	Mrs. T. Bell [P.].
e, f. ♀ ad. et ad. sk.	Seychelles.	Shelley Coll.
g, h. Ad. sk.	Seychelles.	Salvin-Godman Coll.
i. Skeleton.		Purchased.

2. Alectrœnas sganzini.

Columba sganzini, *Verr. MS.*
Funingus sganzini, *Des Murs, Enc. Hist. Nat., Ois.* vi. p. 32 (1854?).
Funingus sganzini, *Bp. Consp. Av.* ii. p. 29 (1854); *id. Compt. Rend.* xxxix. p. 880 (1854), xl. p. 217, n. 69 (1855); *id. Coup d'œil Ordr. Pig.* pp. 12, 55, n. 69 (1855); *Hartl. J. f. O.* 1860, p. 112; *id. Beitr. Faun. Madag.* p. 64 (1861); *Rchnb. Taub.* ii. p. 186 (1862); *Pollen, N. T. D.* i. p. 318 (1863); *Cab. v. d. Deck. Reis.* iii. p. 43 (1869) (Great Comoro).
Founingus (*sic*) sganzini, *J. & Ed. Verr. Rev. et Mag. de Zool.* 1855, p. 511.
Alectrœnas sganzini, *Sclat. Ibis*, 1864, p. 300 (Anjuan); *E. Newt. P. Z. S.* 1877, pp. 300, 302 (Anjuan); *Hartl. Vög. Madag.* p. 260 (1877); *Shell. P. Z. S.* 1879, p. 678 (Grand Comoro and Anjuan); *id. Ibis*, 1883, p. 261; *Tristr. Cat. Coll. B.* p. 43 (1889).
Ptilopus sganzini, *Schleg. N. T. D.* i. p. 88 (1866); *id. P. Z. S.* 1866, p. 424 (Mayotte); *Schleg. & Poll. Rech. Faun. Madag.* p. 115, pl. 37 (1868); *Schleg. Mus. P.-B.* Columbæ, p. 43 (1873); *Gieb. Thes. Orn.* iii. p. 368 (1877).

Furningus spanzani (*errore*), *G. R. Gr. Hand-list*, ii. p. 228, n. 9166 (1870).
Alectrœnas sganzini, *A. Newt. P. Z. S.* 1879, p. 4.
Ptilopus (Funingus) sganzini, *Milne-Edw. & Oust. Nouv. Arch. du Mus.* (2) x. p. 277 (1884).
Ptilonopus sganzini, *Pelz. & Lor. Ann. Naturh. Hofmus.* iii. p. 47 (1888).

Adult male. Deep blue-black; head, neck, upper back, and upper breast grey, the feathers of the neck long, acuminate, and with narrow black shaft-lines; quills blue-black with mealy appearance; under tail-coverts with green reflections: "a large bare scarlet patch round the eyes; iris red; bill dusky olive, slightly paler towards the tip; feet olive-grey" (*Shelley*). Total length 10·5 inches, wing 6·7, tail 4·1, bill 0·7, tarsus 0·9.

Adult female. Like the male, only a little duller and with the under tail-coverts more greenish (*Schlegel*).

Young. The blue colour of the adult is replaced by dark olive-green, mixed with grey on the upper part of head and hind neck; the rest of the head and neck and the upper breast light grey tinged with greenish yellow (*Schlegel*).

Hab. Comoro Islands—Mayotte, Anjuan, and Great Comoro.

a.	♂ ad. sk.	Isl. of Mayotte (*Pollen & Van Dam*).	Tweeddale Coll.
b.	Ad. sk.	Anjuan.	Salvin-Godman Coll.
c.	♀ ad. sk.	Anjuan.	Purchased.
d.	Ad. sk.	Anjuan.	Purchased.
e.	Ad. sk.	Anjuan.	Zool. Soc. Coll.
f.	Ad. sk.	Anjuan (*Kirk*).	Shelley Coll.
g, h.	Ad. sk.	Great Comoro (*Kirk*).	Shelley Coll.
i.	Ad. sk.	Great Comoro.	Salvin-Godman Coll.

3. Alectrœnas nitidissima.

Pigeon hollandais, *Sonn. Voy. Ind. Orient.* p. 175, pl. 101 (1782) (Mauritius).
Hackled Pigeon, *Lath. Syn.* ii. 2, p. 641, n. 36 (1783).
Columba nitidissima, *Scop. Del. Flor. et Faun. Insubr.* ii. p. 93, n. 89 (1786) (*ex Sonnerat*); *Bp. Compt. Rend.* xliii. p. 834 (1856).
Columba franciæ, *Gm. S. N.* i. 2, p. 779, n. 51 (1788) (*ex Sonnerat*); *Lath. Ind. Orn.* ii. p. 604, n. 42 (1790); *Temm. & Knip, Pig.* i. p. 50, pl. 19 (1808–11); *Temm. Hist. Nat. Pig. et Gallin.* i. pp. 228, 463 (1813); *Vieill. N. D.* xxvi. p. 354 (1818); *Steph. Gen. Zool.* xi. 1, p. 2 (1819); *Desm. Dict. Hist. Nat.* xl. p. 328 (1826); *Less. Tr. d'Orn.* p. 470 (1831); *id. Compl. de Buff., Ois.* viii. p. 9 (1837), 2nd ed. p. 295 (1838); *Sundev. K. Sv. Vet.-Ak. Handl.* 1857, p. 53, n. 267; *Layard, B. S. Afr.* p. 263 (1867).
Columba batavica, *Bonn. Enc. Méth.* i. p. 233 (1790).
Ramier hérissé, *Levaill. Ois. d'Afr.* vi. p. 74, pl. 267 (1808).
Columba jubata, *Wagl. Syst. Av.* Columba, sp. 22 (1827).
Alectrœnas nitidissima, *G. R. Gr. List Gen. B.* p. 58 (1840); *Bp. Compt. Rend.* xxxix. p. 880 (1854), xl. p. 217, n. 67 (1855); *id. Coup d'œil Ordr. Pig.* pp. 12, 55, n. 67 (1855); *Hartl. J. f. O.* 1860, p. 112; *id. Beitr. Faun. Madag.* p. 65 (1861); *E. Newt.*

Ibis, 1861, p. 277; *Rchnb. Tauben*, i. p. 123, t. 234. f. 1302 (1862); *Pollen, N. T. D.* i. p. 318 (1863); *Hartl. Vög. Madag.* p. 263 (1877); *Shell. Ibis*, 1883, p. 262.

Alectrœnas franciæ, *Rchnb. Syn. Av.* Columbariæ, p. 2, f. 1302 (1847); *Hartl. Zeitschr. f. Zool. Zoot. u. Palæozool.* i. p. 158 (1848).

Columbigallus franciæ, *Des Murs, Enc. d'Hist. Nat., Ois.* vi. p. 31 (1854 ?).

Alectrœnas nitidissima, *Bp. Consp. Av.* ii. p. 29 (1854).

Ptilopus nitidissimus, *Schleg. & Poll. Rech. Faun. Madag.* p. 159 (1868); *Gieb. Thes. Orn.* iii. p. 366 (1877).

Alectrœnas nitidissimus, *G. R. Gr. Hand-list*, ii. p. 228, n. 9164 (1870).

Alectorœnas nitidissima, *A. Newt. P. Z. S.* 1879, pp. 2, 4.

Adult. "Body and wings indigo-blue; feathers of the head and neck white, much elongated and narrow; the bare scarlet patch surrounding the eye extends on to the cheeks and across the front of the forehead; upper tail-coverts and tail vermilion, a large portion of the outer web of the tail and a great portion of the inner webs of the tail-feathers black: iris red; bill dusky slate-colour, with the base red and the end yellow; feet slate-colour. Total length 11·8 inches, wing 8·2, tail 5·2, bill 1." (*Shelley.*)

Of this species, which is now extinct, only three specimens are in existence—one in the Museum of Paris (which I have examined), a second in that of Mauritius at Port Louis, and a third in the Museum of Science and Art of Edinburgh.

Hab. Mauritius.

4. Alectrœnas madagascariensis.

Palumbus cœruleus madagascariensis, *Briss.* Orn. i. p. 140, pl. xiv. f. 1 (1760).

Columba madagascariensis, *Linn. S. N.* i. p. 283, n. 21 (1766); *Bodd. Tabl. Pl. Enl.* p. 2 (1783); *Gm. S. N.* i. 2, p. 179, n. 21 (1788); *Lath. Ind. Orn.* ii. p. 604, n. 40 (1790); *Bonn. Tabl. Enc. Méth.* i. p. 235 (1790); *Temm. & Knip, Pig.* pl. 17 (1808-11); *Temm. Hist. Nat. Pig. et Gallin.* i. pp. 221, 463 (1813); *Vieill. N. D.* xxvi. p. 352 (1818); *Steph. Gen. Zool.* xi. 1, p. 9 (1819); *Desm. Dict. Hist. Nat.* xl. p. 327 (1826); *Less. Compl. de Buff., Ois.* viii. p. 94 (1837), 2nd ed. p. 295 (1838); *Hartl. Zeitschr. f. Zool. Zoot. u. Palæozool.* i. p. 157 (1848); *id. Ann. & Mag. N. H.* (2) ii. p. 391 (1848); *Sunder. K. Sv. Vet.-Ak. Handl.* 1857, p. 53, n. 266.

Pigeon ramier bleu de Madagascar, *D'Aubent. Pl. Enl.* 11.

Founingo, *Buff. Hist. Nat. Ois.* ii. p. 539 (1771).

Madagascar Pigeon, *Lath. Syn.* ii. 2, p. 640, n. 35 (1783).

Ramier Fourningo, *Levaill. Ois. d'Afr.* vi. p. 72, pl. 266 (1808).

Columba phœnicura, *Wagl. Syst. Av.* Columba, sp. 23 (1827).

Colombe bleu, *Less. Tr. d'Orn.* p. 470 (1831).

Pigeon Ramier bleu (Columba erythronura), *Syanz. Not. Mamm. et Ois. Madag.* p. 39 (*Mém. Soc. Mus. d'H. N. de Strasb.* 1840).

Carpophaga? madagascariensis, *G. R. Gr. Gen. B.* ii. p. 469, n. 28 (1844); *Layard, B. S. Afr.* p. 263 (1867).

Alectrœnas madagascariensis, *Rchnb. Syn. Av.* Columbariæ, p. 2, f. 1301 (1847); *id. Syst. Av.* p. xxv (1852); *Hartl. Vög. Madag.* p. 262 (1877); *Shell. Ibis*, 1883, p. 263; *Tristr. Cat. Coll. B.* p. 43 (1889).

Ptilonopus madagascariensis, *G. R. Gr. Gen. B.* App. p. 23 (1849); *id. List B. Brit. Mus.* Columbæ, p. 9 (1856).

Funingus madagascariensis, *Bp. Consp. Av.* ii. p. 29 (1854); *id. Compt. Rend.* xxxix. p. 880 (1854), xl. p. 217, n. 68 (1855); *id. Coup d'œil Ordr. Pig.* pp. 12, 55, n. 68 (1855); *Hartl. J. f. O.* 1860, p. 111; *id. Beitr. Faun. Madag.* p. 64 (1861); *Rchnb. Tauben*, i. p. 122, t. 234. f. 1301 (1862); *Sclat. P. Z. S.* 1863, p. 164; *Roch & E. Newt. Ibis*, 1863, p. 167; *Pollen, N. T. D.* i. p. 317 (1863); *Grandid. Rev. et Mag. de Zool.* 1867, p. 418; *Aquarone, Bull. Soc. Imp. Acclim.* 1869, p. 361; *Sharpe, P. Z. S.* 1870, p. 399; *Sousa, Mus. Nac. Lisb.* Columbæ, p. 9 (1873); *Bartl. P. Z. S.* 1879, p. 772; *Milne-Edw. & Grandid. Hist. Madag., Ois.* p. 476, pl. cxc. f. 2, pls. cxciii., cxciv. (1885); *Sibree, Ibis*, 1891, p. 564.

Ptilopus madagascariensis, *Schleg. De Dierent.* p. 211 (1864); *id. P. Z. S.* 1866, p. 424; *Schleg. & Poll. Rech. Faun. Madag., Ois.* p. 115 (1868); *Schleg. Mus. P.-B.* Columbæ, p. 43 (1873); *Gieb. Thes. Orn.* iii. p. 365 (1877).

Furningus madagascariensis, *G. R. Gr. Hand-list*, ii. p. 228, n. 9165 (1870).

Alectorœnas madagascariensis, *A. Newt. P. Z. S.* 1879, p. 4.

Adult male. Indigo-blue; throat and neck slaty grey, passing almost into indigo-blue on the forehead, crown, nape, cheeks, and ear-coverts: the slate-grey of the neck not sharply defined in front, but gradually passing on the crop into the colour of the breast; upper tail-coverts and tail dark crimson, glossed at the base of the upper tail-coverts with blue or with green; tail with nearly the entire inner webs and the bases of all the feathers blue-black, also the outer tail-feathers almost entirely blue-black; tail underneath black with blue-green reflections; longer under tail-feathers dull crimson towards the apical half; hind feathers of the legs, feathers of the vent, and basal under tail-coverts white with brown olive-green tips and edges: "bare skin round the eyes red; iris red, or yellowish green surrounded with red; bill slate-olive, yellowish white towards the tip; feet red, powdered with white between the scales" (*Grandidier, Shelley*). Total length 11 inches, wing 7, tail 3·8, bill 0·6, tarsus 0·85.

Female. Like the male.

Young. Blackish green instead of indigo-blue (*Schlegel*).

Hab. Madagascar with Nossibé Island, off the N.W. coast.

a.	Ad. sk.	Madagascar.	Purchased.
b.	Ad. sk.	Madagascar.	E. Wilson, Esq. [P.].
c.	♂ ad. sk.	Madagascar, Aug.	Purchased.
d. e.	Ad. sk.	Madagascar.	Shelley Coll.
f.	Ad. sk.	Madagascar.	Tweeddale Coll.
g.	♂ ad. sk.	Madagascar.	Van Dam [C.].
h.	Ad. sk.	N.E. Madagascar (*Van Dam*).	Salvin-Godman Coll.
i.	♂ juv. sk.	Arkafana, Madagascar, March (*Deans Cowan*).	Tweeddale Coll.

12. MEGALOPREPIA.

Type.
Megaloprepia, *Rchnb. Av. Syst. Nat.* p. xxvi (1852) .... M. magnifica.

Range. Northern Moluccas and through the Papuan Islands to S.E. Australia.

Key to the Species.

a. Upper wing-coverts uniform green, with no yellow spots; quills underneath uniform .. *formosa*, p. 166.
b. Wing-coverts spotted with yellow; base of the inner web of the quills rufous-cinnamon.
a'. Tail underneath grey.
a''. Largest; wing 9·43 to 8·64 inches..... *magnifica*, p. 167.
b''. Medium; wing about 7·47 inches ..... *assimilis*, p. 168.
c''. Smallest; wing 6·88 to 6·68 inches .... *poliura*, p. 169.
b'. Tail underneath black; wing 6·68 inches .. *puella*, p. 170.

1. Megaloprepia formosa.

Carpophaga (Megaloprepia) formosa, *G. R. Gr. P. Z. S.* 1860, p. 360.
Ptilopus bernsteinii, *Schleg. N. T. D.* i. p. 59, pl. 3. f. 1 (♀) (1863) (type examined); *id. Ibis*, 1863, p. 120; *id. Mus. P.-B.* Columbæ, p. 40 (1873); *Elliot, P. Z. S.* 1878, p. 572; *Rosenb. Malay. Archip.* pp. 407, 594 (1879); *Tristr. Cat. Coll. B.* p. 43 (1889).
Carpophaga formosa, *Schleg. Ibis*, 1863, p. 120.
Ptilopus ochrogaster, *Bernst. N. T. N. I.* xxvii. p. 86 (1864); *id. N. T. D.* ii. p. 324 (1864); *Newt. Zool. Record*, i. (1864) p. 87 (1865).
Ptilonopus ochrogaster, *Bernst. J. f. O.* 1864, p. 408 (published after March 1865).
Carpophaga bernsteini, *Wall. Ibis*, 1865, p. 388, n. 77; *Gieb. Thes. Orn.* i. p. 504 (1872); *Rosenb. Reist. naar de Geelvinkb.* p. 8 (1875).
Ptilonopus bernsteinii, *Finsch, Neu-Guin.* p. 177 (1865); *Pelz. & Lor. Ann. Naturh. Hofmus.* iii. p. 47 (1888).
Megaloprepia bernsteinii, *G. R. Gr. Hand-list*, ii. p. 231, n. 9220 (1870); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 11 (1873); *Salvad. Ann. Mus. Civ. Gen.* vii. p. 788 (1875).
Megaloprepia formosa, *Salvad. Ann. Mus. Civ. Gen.* ix. p. 199, n. 5 (1876); *id. Orn. Pap. e Mol.* iii. p. 64 (1882); *Pleske, Bull. Acad. Pétersb.* xxix. p. 534 (1884); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 282 (1890); *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 55 (*Agg. Orn. Pap. e Mol.* p. 181) (1891).

Adult male. Head and neck greenish grey, rest of the upper parts bright green; breast greyish green; on the middle of the lower part of breast a patch of crimson; abdomen and vent ochraceous; under tail-coverts cinnamon-rufous; primaries with a narrow yellowish-white edge on the outer web; quills and tail underneath grey; under wing-coverts ochraceous yellow: bill and feet lead-colour; tip of the bill yellow; irides brown-grey. Total length about 11 inches, wing 5·9, tail 5, bill 0·6, tarsus 0·76.

Female. Similar to the male, but with the head and neck more greenish, with the abdomen darker ochraceous, and with no crimson spot on the breast.

Hab. Halmahera group—Halmahera, Ternate, Batchian, and Obi.

a, b. ♂ ♀ ad. sk. et st.	Gilolo, E. Halmahera.	Wallace Coll. (Types of species.)
c, d. ♂ ♀ ad. sk.	Gilolo, E. Halmahera.	Wallace Coll.
e. ♂ ad. sk.	Gilolo (*Wallace*).	Gould Coll.
f. ♀ ad. sk.	[Aru Is.]	Tweeddale Coll.

2. Megaloprepia magnifica.

Columba magnifica, *Temm. Tr. Linn. Soc.* xiii. p. 125 (1821); *id. Pl. Col.* 163 (livr. 28, 1823); *Desm. Dict. Sc. Nat.* xl. p. 317 (1826); *Steph. Gen. Zool.* xiv. 1, p. 292 (1826); *Wagl. Syst. Av.* Columbæ, sp. 26 (1827); *id. Isis*, 1829, p. 741; *Less. Tr. d'Orn.* p. 469 (1831); *Knip & Prév. Pig.* ii. pl. 25 (1838–43).

Carpophaga magnifica, *Selb. Nat. Libr., Pigeons*, p. 115, pl. 6 (1835); *G. R. Gr. Gen. B.* ii. p. 468, n. 6 (1844); *Gould, B. Austr.* v. pl. 58 (pt. xxv., 1846); *Rchnb. Syn. Av.* Columbariæ, cxli. ff. 1299, 1300 (1847); *Blyth, Cat. B. Mus. A. S. B.* p. 231 (1849); *Rchnb. Vög. Neuholl.* p. 318, n. 419 (1850); *Cass. Pr. Ac. Nat. Sc. Philad.* 1854, p. 231; *G. R. Gr. List Spec. B. Brit. Mus.* Columbæ, p. 20 (1856); *Pelz. Novara Reis., Vög.* p. 107 (1865); *Gieb. Thes. Orn.* i. p. 586 (1872); *Hartert, Kat. Vogelsamml.* p. 189 (1891).

Ptilonopus magnificus, *Sw. Class. B.* ii. p. 347 (1837).

Ptilinopus magnificus, *Hartl. Syst. Verz. Brem.* p. 97 (1844).

Megaloprepia magnifica, *Rchnb. Syst. Av.* p. xxvi (1852); *Bp. Consp. Av.* ii. p. 39 (1854); *id. Compt. Rend.* xxxix. p. 1077 (1854), xl. p. 217, n. 109; *id. Coup d'œil Ordr. Pig.* pp. 18, 55, n. 109 (1855); *Rchnb. Tauben*, i. p. 101, t. 233. ff. 1299–1300 (1862); *Gould, Handb. B. Austr.* ii. p. 110 (1865); *Rams. Ibis*, 1866, p. 333; *G. R. Gr. Hand-list*, ii. p. 231, n. 9217 (1870); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 11 (1873); *Rams. P. Z. S.* 1876, p. 115; *Salvad. Ann. Mus. Civ. Gen.* xii. p. 427 (1878); *Salvad. P. Z. S.* 1879, pp. 67, 68; *Salv. Cat. B. Strickl. Coll.* p. 554 (1882); *Tristr. Cat. Coll. B.* p. 43 (1889); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 282 (1890).

Ptilopus magnificus, *Schleg. De Dierent.* p. 210 (1864); *id. Mus. P.-B.* Columbæ, p. 38 (1873); *Elliot, P. Z. S.* 1878, p. 575; *Rams. Pr. Linn. Soc. N. S. W.* ii. p. 195, n. 516 (1878).

Ptilopus (Megaloprepia) magnificus, *Rams. Tab. List*, p. 17, n. 530 (1888).

Adult male. Head and neck pale grey, slightly washed with greenish; all the upper surface and wings rich golden green; median wing-coverts with a patch of light yellow near the tip of the outer webs, forming an irregular oblique band across the wing; quills shining green; under surface of the wings brown, passing into cinnamon-brown at the base of the quills; under wing-coverts yellow; line down the centre of the throat, middle of the breast, and abdomen rich deep purple; sides of the breast green; lower

abdomen and vent gamboge-yellow; under tail-coverts grey, washed and edged with gamboge-yellow; tail above shining green, below dark grey: bill red at base, tip yellow; feet —— (?); iris —— (?). Total length about 16 inches, wing 9, tail 7·5, bill 0·8, tarsus 1·12.

Female. Like the male, only smaller.

Specimens from N. Queensland are smaller.

Hab. Eastern Australia, from Rockingham Bay to N. S. Wales.

a. Ad. sk.	Australia.	Linn. Soc. Coll. (Type of species.)
b, *c*. Ad. st. et sk.	Australia.	Purchased.
d. Ad. sk.	Australia.	A. Cunningham, Esq. [P.].
e. Ad. sk.	Australia.	Gould Coll.
f. Ad. sk.	Australia.	H. Seebohm, Esq. [P.].
g, *h*. Ad. sk.	S.E. Australia (*Cockerell & Thorpe*).	Salvin-Godman Coll.
i. Ad. sk.	Queensland.	W. Westgarth, Esq. [P.].
k. Ad. sk.	Clarence River.	Tweeddale Coll.
l. Ad. sk.	N.E. Quensland.	Sydney Museum [P.].

3. **Megaloprepia assimilis.**

Carpophaga assimilis, *Gould*, *P. Z. S.* 1850, p. 201 (Cape York); *Bp. Consp. Av.* ii. p. 40 (1854); *Gould*, *B. Austr. Suppl.* pl. 67 (pt. ii., 1855); *G. R. Gr. List Spec. B. Brit. Mus.* Columbæ, p. 21 (1856); *Gieb. Thes. Orn.* i. p. 584 (1872); *Forbes*, *P. Z. S.* 1878, p. 126; *Rams. Ibis*, 1887, p. 345.

Megaloprepia puella (part.), *Bp. Consp. Av.* ii. p. 40 (1854); *id. Compt. Rend.* xxxix. p. 1077 (1854); *id. Coup d'œil Ordr. Pig.* p. 18 (1855).

Carpophaga puella, *Cass.* (*nec Less.*) *Pr. Ac. Nat. Sc. Philad.* 1854, p. 231.

? Megaloprepia assimilis, *Bp. Compt. Rend.* lx. p. 217, n. — (?) (*Coup d'œil Ordr. Pig.* p. 55, n. — ?) (1855), xli. p. 659 (1855), xliii. p. 836 (1856); *Rchnb. Taub.* i. p. 102, n. 239 (1862), ii. p. 203, *Nov.* Taf. iv. ff. 42, 43 (1862); *G. R. Gr. Hand-list*, ii. p. 231, n. 9218 (1870); *Sousa*, *Mus. Nac. Lisb.* Columbæ, p. 11 (1873); *Rams. P. Z. S.* 1876, p. 115; *Salvad. Ann. Mus. Civ. Gen.* ix. p. 199 (1876); *Rams. Pr. Linn. Soc. N. S. W.* ii. p. 195, n. 217 (1878); *Salvad. Ann. Mus. Civ. Gen.* xii. p. 427 (1878); *id. P. Z. S.* 1879, p. 67, 68; *Rams. Ibis*, 1882, p. 345; *North*, *Pr. Linn. Soc. N. S. W.* (2) ii. p. 410 (1887); *id. Descr. Cat. Nests and Eggs Austr. B.* p. 270 (1889); *Tristr. Cat. Coll. B.* p. 43 (1889).

Ptilopus assimilis, *Schleg. Mus. P.-B.* Columbæ, p. 38 (1873); *Elliot*, *P. Z. S.* 1878, p. 574.

Ptilinopus (Megaloprepia) assimilis, *Rams. Tab. List*, p. 18, n. 530 *a* (1888).

Similar to *M. magnifica*, but smaller. Total length about 14 inches, wing 7·5.

Hab. Cape York Peninsula, and as far south as neighbourhood of Rockingham Bay.

a, *b*, *c*. Ad. st. et ♀ sk.	Cape York, North Australia, Oct., Nov. (*J. Macgillivray*).	Voy. of H.MS. 'Rattlesnake.' (Types of species.)
d. ♂ ad. sk.	Cape York.	'Challenger' Exped.
e, *f*, *g*. Ad. sk.	Somerset, Cape York (*Cockerell & Thorpe*).	Salvin-Godman Coll.
h. Ad. sk.	Port Albany (*C. Coxen*).	Tweeddale Coll.

4. Megaloprepia poliura.

Ptilopus puellus (part.), *Schleg. Mus. P.-B.* Columbæ, p. 40 (specim. from Jobi) (1873); *Rosenb. Malay. Archip.* p. 561 (part.) (1879).

Megaloprepia assimilis, *Salvad. & D'Alb.* (*nec Gould*) *Ann. Mus. Civ. Gen.* vii. p. 833, n. 72 (Mount Epa) (1875); *Salvad. Ann. Mus. Civ. Gen.* ix. p. 199, n. 33 (part.) (1876); *D'Alb. Sydn. Mail*, 1877, p. 248; *id. Ann. Mus. Civ. Gen.* x. pp. 18, 20 (Fly River) (1877); *D'Alb. Nuova Guin.* p. 585 (1880); *Finsch, Vög. d. Südsee*, p. 28 (Goldie and Laloki River) (1884).

Carpophaga puella, *Rams.* (*nec Less.*) *Pr. Linn. Soc. N. S. W.* i. p. 304 (Port Moresby) (1876); *Sharpe, Journ. Linn. Soc., Zool.* xiii. p. 503 (Laloki River) (1877), xiv. p. 588 (1879); *Rams. Pr. Linn. Soc. N. S. W.* iii. p. 103 (1878).

Megaloprepia poliura, *Salvad. Ann. Mus. Civ. Gen.* xii. pp. 426, 427 (S.E. New Guinea and Jobi) (1878); *Rams. Pr. Linn. Soc. N. S. W.* iii. p. 291 (1878); *Salvad. P. Z. S.* 1879, p. 67; *D'Alb. & Salvad. Ann. Mus. Civ. Gen.* xiv. p. 119 (Fly River) (1879); *Salvad. P. Z. S.* 1879, p. 67; *id. Ibis*, 1879, p. 326; *D'Alb. Nuova Guin.* p. 588 (1880); *Sharpe, Journ. Linn. Soc., Zool.* xvi. p. 446 (1882); *Salvad. Orn. Pap. e Mol.* iii. pp. 68, 557 (1882); *Meyer, Zeitschr. f. ges. Orn.* 1886, p. 37 (Kafu); *Rams. Tab. List*, note 530 *a* (1888); *Tristr. Cat. Coll. B.* p. 43 (1889); *Meyer, Ibis*, 1890, p. 422 (Gumbu, N.E. New Guinea); *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 55 (*Agg. Orn. Pap. e Mol.* p. 181) (1891).

Ptilopus (Megaloprepia) poliura, *Rams. Pr. Linn. Soc. N. S. W.* iv. p. 100, n. 158 (1879).

Carpophaga poliura, *Rams. Pr. Linn. Soc. N. S. W.* viii. p. 28 (1883) (egg).

Similar to *M. magnifica* and *M. assimilis*, but smaller than either, and with the grey under tail-coverts washed with green: "bill and feet greenish; iris yellow" (*D'Albertis*). Total length about 13 inches, wing 6·8 to 6·75.

Hab. Jobi and Central and Eastern New Guinea.

a. ♂ ad. sk.	Ansus, Isl. of Jobi, New Guinea, April (*A. B. Meyer*).	Salvin-Godman Coll.
b. ♀ ad. sk.	Central New Guinea (*D'Albertis*).	Salvin-Godman Coll.
c. Ad. sk.	Port Moresby.	J. Broadbent [C.].
d. Ad. sk.	Astrolabe Mts., June (*A. Goldie*).	Tweeddale Coll.
e. Ad. sk.	Astrolabe Mts.	Dr. Romilly [P.].
f. Ad. sk.	S.E. New Guinea.	Salvin-Godman Coll.

5. Megaloprepia puella.

Columba puella, *Less. Bull. Univ. Sc. Nat.* x. p. 400 (1827) (Port Praslin et Doréry); *id. Voy. Coq., Zool.* i. pt. 2. p. 711 (1828); *id. Man. d'Orn.* ii. p. 172 (1828); *Wagl. Isis*, 1829, p. 742; *Less. Tr. d'Orn.* p. 469 (1831); *id. Compl. de Buff., Ois.* viii. p. 76 (1837); *id. op. cit.* 2nd ed. 290 (1838); *Prév. & Knip, Pig.* ii. pl. 1 (1838–43); *Müll. Verh. Land- en Volkenk.* p. 22 (1839–1844).

"Columba amarantha, *Less.*," *Selb. Nat. Libr., Pigeons*, p. 116 (1835).

Carpophaga puella, *G. R. Gr. List of Gallinæ Brit. Mus.* p. 5 (1844); *id. Gen. B.* ii. p. 468, n. 7 (1844); *id. List Spec. B. Brit. Mus.* Columbæ, p. 21 (1856); *Sclat. Journ. Pr. Linn. Soc.* ii. p. 168, n. 147 (1858); *G. R. Gr. P. Z. S.* 1858, p. 196, 1859, p. 159; *id. Cat. B. New Guin.* pp. 48, 61 (1859); *id. P. Z. S.* 1861, p. 437; *Wall. Ibis*, 1865, p. 388, n. 76; *Finsch, Neu-Guin.* p. 178 (1865); *Wall. J. f. O.* 1866, p. 282, n. 36; *Gieb. Thes. Orn.* i. p. 588 (1872); *Pelz. Verh. z.-b. Ges. Wien*, 1876, p. 719; *Hartert, Kat. Vogelsamml.* p. 190 (1891).

Megaloprepia puella, *Bp. Consp. Av.* ii. p. 40 (1854); *id. Compt. Rend.* xxxix. p. 1077 (part.) (1854), xl. p. 217, n. 110; *id. Coup d'œil Ordre Pig.* pp. 18, 55, n. 110 (1855); *id. Compt. Rend.* xliii. p. 836 (1856); *Rchnb. Tauben*, i. p. 102, n. 238 (1862), ii. p. 203, *Novit.* Taf. iv. f. 41 (1862); *Rosenb. N. T. N. I.* xxv. p. 248, n. 233 (1863); *id. J. f. O.* 1864, p. 133, n. 233; *Gould, Handb. B. Austr.* ii. p. 111 (1865); *G. R. Gr. Hand-list*, ii. p. 231, n. 9219 (1820); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 11 (1873); *Salvad. Ann. Mus. Civ. Gen.* vii. p. 788 (1875); ? *Rams. P. Z. S.* 1876, p. 115; *Salvad. Ann. Mus. Civ. Gen.* ix. p. 199, n. 34 (1876), x. p. 158 (1877), xii. p. 427 (1878); *id. P. Z. S.* 1879, p. 67; *D'Alb. Nuova Guin.* p. 582 (1880); *Salvad. Orn. Pap. e Mol.* iii. p. 66 (1882); *Nehrk. J. f. O.* 1885, p. 34 (egg); *Guillem. P. Z. S.* 1885, p. 659; *Tristr. Cat. Coll. B.* p. 43 (1889); *Heine & Rchnw. Nomencl. Mus. Hein. Orn.* p. 282 (Ceram!) (1890); *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 55 (*Agg. Orn. Pap. e Mol.* p. 181) (1891).

Carpophaga (Megaloprepia) puella, *G. R. Gr. Cat. B. Trop. Isl.* p. 42 (1859).

Ptilopus puellus, *Schleg. Mus. P.-B.* Columbæ, p. 38 (1873); *Rosenb. Malay. Archip.* pp. 396, 561 (part.) (1879).

Ptilopus puella, *Elliot, P. Z. S.* 1878, p. 554; *Salvad. P. Z. S.* 1879, p. 66.

? Carpophaga magnifica, *Bernst.* (*nec Temm.*) *Dagboek*, p. 161 (Batanta) (1883).

Similar to *M. poliura*, but the under surface of the tail black: "bill greenish or yellowish; feet olive or ashy; irides red" (*D'Albertis*). Total length about 13 inches, wing 6·75, tail 5·75, bill 0·75–0·7, tarsus 0·87.

Hab. Western New Guinea and the neighbouring islands—Mysol, Salawatti, Batanta, Ghemien, and Waigiou.

a. Ad. st.	New Guinea.	Leyden Museum.
b, *c*. Ad. sk.	New Guinea.	Gould Coll.
d. Ad. sk.	New Guinea.	Tweeddale Coll.
e. Ad. sk.	New Guinea.	Wallace Coll.
f. ♀ ad. sk.	Dorey.	Wallace Coll.

g. ♂ ad. sk.	Passim, June (*A. B. Meyer*).	Salvin-Godman Coll.
h, i. Ad. sk.	Amberbaki, N.W. New Guinea, April.	Salvin-Godman Coll.
k. Ad. sk.	[Java.]	Salvin-Godman Coll.
l. Ad. sk.	Waigiou (*Wallace*).	Gould Coll.
m. Ad. sk.	Waigiou (*Wallace*).	Seebohm Coll.
n, o. ♀ ad. et juv. sk.	Waigiou.	Wallace Coll.
p. Ad. sk.	Waigiou (*Wallace*).	Tweeddale Coll.
q. ♂ ad. sk.	Salawatti, June (*Hoedt*).	Tweeddale Coll.
r. Ad. sk.	Mysol.	Wallace Coll.

Subfamily III. CARPOPHAGINÆ.

Key to the Genera.

a. Fourteen tail-feathers.
  a'. Head not crested.
    a''. A fleshy knob at the base of the bill..... 14. GLOBICERA, p. 172.
    b''. No fleshy knob at the base of the bill.
      a'''. Feathered skin on the forehead, of a saddle-like shape, covering half the culmen ..... 13. SERRESIUS, p. 171.
      b'''. No saddle-like production on the forehead.
        a^4. General plumage not white.
          a^5. Feathers of the front neck and crop normal, not bifid. 15. CARPOPHAGA, p. 181.
          b^5. Feathers of the neck and crop-region bifid ..... 16. PHÆNORHINA, p. 226.
        b^4. General plumage white ..... 17. MYRISTICIVORA, p. 227.
  b'. Head crested ..... 18. LOPHOLAIMUS, p. 235.
b. Twelve tail-feathers; bill similar to that of *Columba*, or even stronger..... 19. HEMIPHAGA, p. 236.

13. SERRESIUS.

Type.

Serresius, *Bp. Compt. Rend.* xli. p. 1110 (1855); *id. Rev. et Mag. de Zool.* 1856, p. 401; *id. Icon. Pig. Introd.* p. 8, and pl. xxxiii. (1857)..... S. galeatus.

Range. Marquesas Islands.

1. Serresius galeatus.

Serresius galeatus, *Bp. Compt. Rend.* xli. p. 1110 (1855); *id. Rev. et Mag. de Zool.* 1855, p. 392, 1856, p. 401, pl. xviii.; *id. Compt. Rend.* xliii. pp. 835, 948 (1856); *id. Icon. Pig.* pl. 33 (1857); *Deslongchamps, Bull. Soc. Linn. Norm.* iv. p. 193 (1859); *Rchnb. Tauben*, i. p. 121 (1862), ii. p. 186, *Novit.* t. vii. f. 78 (*ex Bp.*)

(1862); *Sclat. Ibis*, 1877, p. 129 (*Mus. Turati*); *Finsch, P. Z. S.* 1877, p. 408; *Salvad. Monogr. sottogen.* Globicera, p. 3 (1878); *Tristr. Ibis*, 1881, p. 249.

Carpophaga (Serrisius) galeata, *G. R. Gr. Cat. B. Trop. Isl.* p. 41 (1859).

Serresius forsteri, *G. R. Gr. Hand-list*, ii. p. 229, n. 9186 (part.) (1870) (syn. emend.); *Wiglesw. Aves Polynes.* p. 53, n. 271 (part.) (1891).

Type. Head, neck, and lower parts dark grey, darker, nearly slate-colour, on the upper part of the head and on the nape; back, wings, and tail dark shining green; under wing-coverts greyish black; quills and tail-feathers underneath almost black; under tail-coverts chestnut; feathers covering the frontal saddle whitish grey. Total length 20·5 inches, wing 11·5, tail 8·5, culmen 0·7, gape 1·8, tarsus 1·62 (*Mus. Paris*).

Hab. Marquesas Islands.

a. ♂. Marquesas. Verreaux Coll.

14. GLOBICERA.

Type.

Globicera, *Bp. Consp. Av.* ii. p. 30 (1854); *id. Compt. Rend.* xxxix. p. 1072 (1854) ..... G. pacifica.

Cf. *Salvadori, Monografia del sottogenere* Globicera, pp. 17, Torino, 1878.

Range. Polynesia and Papuan Islands.

Key to the Species.

a. Under tail-coverts chestnut.
  a'. Cere black.
    a''. Tail above green; hind neck ash-colour.
      a'''. Front part of the neck, breast, and abdomen vinous ..... *pacifica*, p. 173.
      b'''. Neck and breast ashy, lower abdomen like the under tail-coverts chestnut.. *oceanica*, p. 176.
    b''. Tail above blue-black; nape vinous .... *myristicivora*, p. 177.
  b'. Cere red; tail above blue-black.
    c''. Head and neck pale vinous; lower part of the hind neck ashy ..... *rubricera*, p. 178.
    d''. Head and neck ashy; cheeks and throat pale vinous ..... *rufigula*, p. 179.
b. Under tail-coverts dark green.
    e''. Frontal knob very large; head and neck pale ash-colour ..... *auroræ*, p. 180.
    f''. Frontal knob very small; head and neck dark ash-colour, darker on the upper part of the head and hind neck ..... *wilkesi* *, p. 181.

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* CARPOPHAGA? FORSTERI.

Columba globicera, var.?, *Forst. MS.* undè
Columba R. Forsteri, *Wagl. Isis*, 1829, p. 739 (*ex Forster*).

1. Globicera pacifica.

Ferruginous-vented Pigeon, *Lath. Syn.* ii. 2, p. 633, n. 24 (1783).

Columba pacifica, *Gm. S. N.* i. 2, p. 777, n. 44 (1788) (*ex Latham*; Ins. Amicis); *Lath. Ind. Orn.* ii. p. 600, n. 27, et var. β (1790) (part., ex Ins. Tongatabou, sed non ex Ins. Otaheite); *Bonn. Enc. Méth.* i. p. 241 (1790); *Bechst. Lath. Ueb.* ii. p. 612, n. 24 (1794), iv. p. 380 (1811).

Columba ænea, part., *Wagl. Syst. Av.* Columba, sp. 15 (1827).

Columba globicera, *Reinh. Forst. MS. & Icon. ined.*; *Wagl. Isis*, 1829, p. 738 (part., ex ins. Tonga-tabu et Eaoowe, sed non ex Oulan et Nova Guinea); *Forst.* (*ed. Licht.*) *Descr. An.* p. 166, n. 148 (part., Tonga-tabu et Eaoowe) (1844).

Carpophaga ænea, *G. R. Gr. Gen. B.* ii. p. 468, n. 1 (part.) (1844); ? *Marie, Act. Soc. Linn. Bord.* xxvii. p. 328 (1870) (New Caledonia); *id. Ibis*, 1877, p. 362, n. 63; *Layard, Ibis*, 1878, p. 260, 1880, p. 231 (Loyalty Islands), 1882, p. 528 (New Caledonia), p. 544; *Schal. J. f. O.* 1887, p. 245.

Carpophaga oceanica, *Selb.* (*nec Less.*) *Nat. Libr., Pigeons*, p. 117, pl. vii. (1835); *Peale, Un. St. Expl. Exp.* p. 198 (1848) (Upolu, Tongatabu, and Duke of York Isl.); *Macgill. Voy. Rattlesn.* i. p. 244 (1852) (Duchateau Isl.); *Hartl. Wiegm. Arch. f. Naturg.* 1852, pp. 115, 134 (part., Fiji, Tonga, and Samoa Isl.); *id. J. f. O.* 1854, p. 169 (nec p. 168); ? *Jouan, Mém. Soc. Cherb.* ix. p. 96 (1863).

Carpophaga globicera, *Hartl. J. f. O.* 1854, p. 168 (New Caledonia); *Cass. Pr. Ac. Nat. Sc. Philad.* 1854, p. 229, n. 9; *Sclat. List Vert. An.* 8th ed. p. 443 (1883) (Samoa Isl.).

Columba globicera, part., *Forst.* (*ed. Licht.*) *Descr. An.* p. 166, n. 148 (var. ins. Otaheitee) (1844).

Carpophaga forsteri, *G. R. Gr. Gen. B.* App. p. 23 (1849); *Gieb. Thes. Orn.* i. p. 585 (part.) (1872).

Globicera forsteri (part.), *Bp. Consp. Av.* ii. p. 30 (1854); *id. Compt. Rend.* xxxix. p. 1072 (1854), xl. p. 217, n. 72 (1855); *id. Coup d'œil Ordre Pig.* pp. 13, 55, n. 72 (1855); *id. Compt. Rend.* xliii. p. 835 (1856); *Rchnb. Tauben*, i. p. 120 (1862); *Salvad. Monogr. sottogen.* Globicera, p. 3 (1878).

Carpophaga (Globicera) forsteri, *G. R. Gr. Cat. B. Trop. Isl.* p. 40 (1859).

Columba forsteri, *Finsch & Hartl. Orn. Centralpol.* p. 146 (note) (1867).

Serresius forsteri, part., *G. R. Gr. Hand-list*, ii. p. 229, n. 9185 (1870); *Wiglesw. Aves Polyn.* p. 53, n. 271 (part.) (1891).

"Varietas insulæ Otaheitee prorsus capite et cervice nigris. Dorsum, uropygium, remiges, et rectrices cæruleo- et viridi-nitentia. Gula, jugulum, pectus, abdomen, et femora fuliginosa. Crissum ferrugineum. Capistrum album. Cera prorsus non globosa." (*Forster.*)

Although Forster's description agrees very well with *Serresius galeatus* from the Marquesas Islands, I can scarcely believe that it applies to that species, and that the bird from Otaheitee is the same, as supposed by Gray, and more recently by Mr. Wiglesworth. Forster distinctly says that his bird had the "cera prorsus non globosa," but he would not have failed to describe the very peculiar structure at the base of the culmen of *Serresius galeatus*. In colouring it seems that *Carpophaga ? forsteri* is very much like *C. wilkesi* from the same island, and I should have thought that the two were the same species, if it were not for the under tail-coverts being *ferruginous*, as mentioned by Forster.

Globicera pacifica, *Bp. Consp. Av.* ii. p. 30 (1854) (part., Tongatabu and Wallis Isl.); *id. Compt. Rend.* xxxix. p. 1072 (part.) (1854), xl. p. 217, n. 71 (1855); *id. Coup d'œil Ordr. Pig.* pp. 13, 55, n. 71 (1855), xliii. p. 835 (1856); *Rchnb. Tauben*, i. p. 120 (part.) (1862); *G. R. Gr. Hand-list*, ii. p. 229, n. 9178 (1870); *Tristr. Ibis*, 1879, p. 194 (Ambrym).

Carpophaga pacifica, *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 66 (1856); *id. List B. Trop. Isl.* p. 40 (1859) (Friendly Isl., Tongatabu, Amsterdam Isl., Eaoowe or Middlebourg); *Finsch & Hartl. Orn. Centralpol.* p. 142 (part.) (1867); *iid. J. f. O.* 1870, pp. 122, 134; *Gräffe, J. f. O.* 1870, p. 408; *Hartl. & Finsch, P. Z. S.* 1871, pp. 22, 24 (Sawai), 31 (Rarotonga); *iid. P. Z. S.* 1872, p. 101; *Finsch, J. f. O.* 1872, pp. 32, 48; *Gieb. Thes. Orn.* i. p. 587 (syn. emend.) (1872); *Schleg. Mus. P.-B.* Columbæ, p. 87 (1873); *Finsch, Vög. der Palau Gruppe*, p. 26 (*Mus. Godeffroy*, viii. 1875); *Layard, P. Z. S.* 1875, pp. 430 (Mango, Fiji), 438; *Whitmee, P. Z. S.* 1875, p. 495; *id. Ibis*, 1875, p. 443; *Rams. Pr. Linn. Soc. N. S. W.* i. p. 79 (1875); *Layard, P. Z. S.* 1876, pp. 496 (Navigator's Islands), 503; ? *Tristr. Ibis*, 1876, p. 263, n. 15 (Erromango); *Layard, Ibis*, 1876, p. 392, n. 66 (Ovalau, Wakai, Mokani, Vitilevu, Kandavu); *Finsch, P. Z. S.* 1877, pp. 726, 740 (New Hebrides), 775 (Eua), 783 (Niuafou); *Garrod, P. Z. S.* 1878, p. 104; *Whitmee, P. Z. S.* 1878, p. 274 (Ellice Islands); ? *Layard, Ibis*, 1878, p. 260, n. 63 (New Caledonia), p. 276, n. 33, p. 280 (New Hebrides); *Salvad. Monogr. sottogen.* Globicera, p. 5 (1878); *id. Ibis*, 1872, pp. 326, 364; *Schmeltz, Verh. Ver. Hamb.* 1877 (1879) p. 78; *Rams. Pr. Linn. Soc. N. S. W.* iii. p. 339 (1879); *Schmeltz, Ethn. Abth. Mus. Godeffr.* 1881, p. 224; *Finsch, Voy. Challeng., Birds*, pp. 38, 55 (1881); *Garrod, ibid.* p. 154 (1881); *Salvad. Orn. Pap. e Mol.* iii. p. 70 (1882); *Pelz. & Lorenz, Ann. Naturh. Hofmus.* iii. p. 47 (1888); *Tristr. Cat. Coll. B.* p. 42 (1889) (New Hebrides, New Guinea); *Wiglesw. Aves Polynes.* p. 51, n. 265 (1891).

Carpophaga microcera, *Bp. in litt.*; *Cass. Un. St. Expl. Exp., Orn.* p. 263, pl. xxix. (1858) (Tonga-tabu, Duke of York Isl.); ? *Sclat. P. Z. S.* 1862, p. 325, 1863, p. 1, 1866, p. 77.

Globicera microcera, *Bp. Consp. Av.* ii. p. 31, n. 4 (1854) (Vavao, Samoa); *id. Compt. Rend.* xl. pp. 215, 217, n. 74 (1855); *id. Coup d'œil Ordr. Pig.* pp. 53, 55, n. 74 (1855); *id. Icon. Pig.* pl. 36 (1857); *Rchnb. Tauben*, i. p. 120 (1862), ii. p. 185, *Novit. Suppl.* t. vi. f. 74 (1862); *G. R. Gr. Hand-list*, ii. p. 229, n. 9180 (1870).

Carpophaga tarrali, *Bp. in litt.*

Globicera tarrali, *Bp. Consp. Av.* ii. p. 31, n. 6 (1854) (Vanikoro); *id. Compt. Rend.* xxxix. p. 1073 (1854), xl. p. 217, n. 76 (1855); *id. Coup d'œil Ordr. Pig.* pp. 13, 55, n. 76 (1855); *Bp. Icon. Pig.* pl. 38 (1857); *Rchnb. Tauben*, i. p. 120 (1862), ii. p. 200 (1862); *G. R. Gr. Hand-list*, ii. p. 229, n. 9181 (1870); *Gieb. Thes. Orn.* ii. p. 588 (1872).

Globicera sundevalli, part., *Bp. Consp. Av.* ii. p. 32, n. 8 (1854) (Tonga-tabu, Wallis Isl.); *id. Compt. Rend.* xxxix. p. 1073 (1854), xl. p. 217, n. 78 (1855) (Caroline, *errore*); *id. Coup d'œil Ordr. Pig.* pp. 14, 55, n. 78 (1855); *id. Icon. Pig.* pl. 40 (1857) (Caroline !); *Rchnb. Tauben*, i. p. 121 (1862); *G. R. Gr. Hand-list*, ii. p. 229, n. 9182 (1870).

Carpophaga sundevalli, part., *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 18 (1856) (specim. *b*, *c*, *d*, Louisiade Archip.); *id. P. Z. S.* 1858,

p. 196; *id. Cat. B. New Guin.* p. 47 (part.), p. 61 (1859); *id. P. Z. S.* 1861, p. 437 (part.); *Wall. Ibis*, 1861, p. 290 (Waigiou), 1865, p. 383, n. 48; *Gieb. Thes. Orn.* i. p. 588 (1872).

Carpophaga (Globicera) pacifica, *G. R. Gr. Cat. B. Trop. Isl.* p. 40 (1859); *Cab. & Rchnw. J. f. O.* 1876, p. 325 (Vavao); *Salvad. Atti R. Ac. Sc. Tor.* xiii. p. 322 (1878) (D'Urville Isl. or Tarawai); *Rams. Pr. Linn. Soc. N. S. W.* iii. p. 292 (1878) (Teste Isl., South-east Cape, &c.), iv. p. 101, n. 164 (1879) (Solomon Islands).

Carpophaga (Globicera) microcera, *G. R. Gr. Cat. B. Trop. Isl.* p. 40 (1859).

Carpophaga (Globicera) ——?, *G. R. Gr. Cat. B. Trop. Isl.* p. 40 (1859) (Tanna, New Hebrides).

Carpophaga (Globicera) tarrali, *G. R. Gr. Cat. B. Trop. Isl.* p. 40 (1859).

Carpophaga samoensis, *A. Brehm, Führer durch den zool. Gart.* 1865, p. 21.

Carpophaga frauenfeldi, *Pelz. Novara Reis., Vög.* p. 106 (1865) (Stewart Isl., type examined); *Gieb. Thes. Orn.* i. p. 585 (1872).

Globicera tumida, part., *G. R. Gr. Hand-list*, ii. p. 229, n. 9176 (1870).

Hemiphaga frauenfeldii, *G. R. Gr. Hand-list*, ii. p. 231, n. 9225 (1870).

Carpophaga, sp., *Salvad. Ann. Mus. Civ. Gen.* ix. p. 200, n. 37 (1876) (Louisiade Islands).

Adult. Head and hind neck light grey; margin of the forehead and feathers round the base of the bill and chin whitish; front part of the neck, breast, and abdomen pale vinous; sides, flanks, and tibial feathers grey, the latter tinged with vinous; under tail-coverts chestnut; mantle (sharply defined from the grey of the hind neck), back, rump, upper tail-coverts, wings, and tail above bronze-green, with some blue tinge: under wing-coverts ashy; quills and tail-feathers below brown-black: bill and knob at the base black; feet red. Total length 15·33 inches, wing 8·63–8·04, tail 5·20, bill 0·98–0·90, tarsus 0·98.

Hab. From the Samoa Islands on the east to New Guinea.

It is not quite certain that the birds found in Rarotonga and New Caledonia belong to the present species.

a, b. Ad. sk.	Samoa.	Gould Coll.
c. Ad. sk.	Samoa.	R. S. J. Whitmee [P.].
d. ♀ ad. sk.	Samoa (*Rev. G. Brown*).	'Challenger' Exped.
e, f. Ad. skel. st.	Savage Isl.	J. Brenchley, Esq. [P.].
g. Ad. sk.	Friendly Isl.	Purchased.
h, i, k. ♂ ♀ ad. sk.	Tongatabou.	'Challenger' Exped.
l, m. ♂ ♀ ad. sk.	Wakaia, Fiji Isl., Dec. (*E. L. Layard*).	Tweeddale Coll.
n. ♂ ad. sk.	Aneiteum, N. Hebrides.	J. McGillivray, Esq. [P.].
o. ♂ juv. sk.	Api, N. Hebrides.	'Challenger' Exped.
p, q, r. ♂ ad. sk.	Louisiade Archipelago.	Sir J. Ingham [P.].
s, t, u. ♀ ad. et ad. st.	Louisiade Archipelago, Jan., July (*J. McGillivray*).	Voyage of H.M.S. 'Rattlesnake.'

v, w. Ad. sk.	Port Moresby (*Goldie*).	Salvin-Godman Coll.
x. Ad. sk.	[Waigiou.]	Purchased.
y. Ad. st.		Zoological Society's Coll.
z. Skeleton.		Purchased.

2. Globicera oceanica.

Columba oceanica, *Less. Voy. Coq. Zool.* i. p. 432, Atlas, pl. 41 (1826); *Desm. Dict. Sc. Nat.* xl. p. 316 (1826); *Less. op. cit.* i. 2, p. 708 (1828) (Oualan); *id. Man. d'Orn.* ii. p. 166 (1828); *Wagl. Isis*, 1829, p. 739; *Less. Tr. d'Orn.* p. 468 (1831); *Kittl. Kupfert.* p. 25, t. 33. f. 1 (1833); *Prév. & Knip, Pig.* ii. pl. 24 (1838–43); *Kittl. Reise*, i. p. 377, ii. pp. 39, 62 (1858).

Carpophaga oceanica, *G. R. Gr. Gen. B.* ii. p. 468, n. 2 (1844); *Peale, Un. St. Expl. Exped., Birds*, n. 119 (1848); *Hartl. Wiegm. Arch. f. Naturg.* 1852, pp. 115 (part.), 135; *id. J. f. O.* 1854, p. 168 (*nec* p. 169); *Cass. Pr. Ac. Nat. Sc. Philad.* 1854, p. 229; *Hartl. P. Z. S.* 1867, p. 830 (Pelew); *Hartl. & Finsch, P. Z. S.* 1872, p. 101; *Schleg. Mus. P.-B.*, Columbæ, p. 87 (1873); *Finsch, Vög. der Palau Gruppe*, p. 26 (*Mus. Godeffr.* viii. 1875); *id. P. Z. S.* 1877, pp. 726, 775, 780 (Ponapé); *Salvad. Monogr. sottogen.* Globicera, p. 8 (1878); *id. Ibis*, 1879, p. 364; *Nehrk. J. f. O.* 1879, p. 407 (egg); *Finsch, J. f. O.* 1880, pp. 292, 304; *id. P. Z. S.* 1880, p. 576 (Ruk, Centr. Carolines); *id. Ibis*, 1880, pp. 220, 331, 332 (Marshall Isl.), 433 (Ponapé), 1881, pp. 108, 113 (Kushai), 115 (Ponapé); *Schmeltz, Ethn. Abth. Mus. Godeffr.* 1881, pp. 298, 330, 353; *Finsch, Mitth. orn. Ver. Wien*, 1884, p. 125; *Tristr. Cat. Coll. B.* p. 42 (1889); *Hartert, Kat. Vogelsamml.* p. 130 (1891); *Wiglesw. Aves Polynes.* p. 52, n. 266 (1891).

Globicera oceanica, *Bp. Consp. Av.* ii. p. 31 (1854); *id. Compt. Rend.* xxxix. p. 1072 (1854), xl. p. 217, n. 73 (1855); *id. Coup d'œil Ordr. Pig.* pp. 15, 55, n. 73 (1855), xliii. p. 835 (1856); *Rchnb. Tauben*, i. p. 120 (syn. emend.), t. 138. ff. 1283–84 (1862); *G. R. Gr. Hand-list*, ii. p. 229, n. 9179 (1870).

Carpophaga (Globicera) oceanica, *G. R. Gr. Cat. B. Trop. Isl.* p. 41 (1859).

Carpophaga pacifica, part., *Hartl. & Finsch, Orn. Centralpolyn.* p. 142 (1867); *iid. P. Z. S.* 1868, pp. 7, 118.

Adult. Head, neck, and breast grey; margin of the forehead, feathers round the base of the bill, and chin whitish; lower breast, abdomen, and under tail-coverts chestnut; sides grey; mantle (sharply defined from the grey of the hind neck), back, rump, upper tail-coverts, wings, and tail above bronze-green; under wing-coverts dark grey; quills and tail below brown: bill and knob at the base black; feet red; iris red with a yellow outer ring. Length 15·5 inches, wing 9·5, tail 6·25, bill 0·92, tarsus 1·25.

Hab. Carolines and Pelew Islands.

a. Ad. sk.	Pelew Islands.	J. Cohen, Esq. [C.].
b. Ad. sk.	Pelew Islands (*Cohen*).	Salvin-Godman Coll.
c. Ad. sk.	Pelew Islands.	Tweeddale Coll.

3. Globicera myristicivora.

Ramier cuivré mangeur de muscade, *Sonner. Voy. Nouv. Guin.* p. 168 pl. 102 (1776) (New Guinea).

Columba myristicivora, *Scop. Del. Flor. et Faun. Insubr.* ii. p. 94, n. 94 (1786) (*ex Sonnerat*); *Bp. Compt. Rend.* xliii. p. 835 (1856).

Columba ænea, var. *β*, *Gm. S. N.* i. 2, p. 780, n. 22 (1788) (*ex Sonnerat*); *Lath. Ind. Orn.* ii. p. 602, n. 33 (1790); *Vieill. N. D.* xxvi. p. 363 (part.) (1818); *Steph. Gen. Zool.* xi. p. 21 (part.) (1819).

Columba ænea, var. *a*, *Bonn. Tabl. Enc. Méth.* p. 233 (1790).

Columba ænea, *Quoy & Gaim.* (*nec Linn.*) *Voy. de l'Uran., Zool.* p. 119, pl. 29 (1824) (type from Rawak Isl. examined); *Less. Tr. d'Orn.* p. 468 (part.) (1831).

Columba ænea, mas ad., *Wagl. Syst. Av.* Columba, sp. 15 (1827) (*ex Q. & G.*); *id. Isis*, 1829, p. 738.

Columba globicera, part., *Wagl. Isis*, 1829, p. 738; *Forst. Descr. An.* p. 166 (*Obs.* iii. p. 167, *ex Sonnerat*) (1844).

Colombe muscadivore, part., *Less. Compl. de Buff., Ois.* viii. p. 81 (1837); *id. op. cit.* 2nd ed. p. 291 (1838).

Carpophaga ænea, part., *G. R. Gr. Gen. B.* ii. p. 468, n. 1 (1844).

? Carpophaga, sp., *Blyth, Cat. B. Mus. A. S. B.* p. 232, n. 1407 (1849) (Islet off the coast of Waigiou).

Globicera pacifica, part., *Bp. Consp. Av.* ii. p. 30 (1854) (types examined); *id. Compt. Rend.* xxxix. p. 1072 (1854), xl. p. 217, n. 71 (1855); *id. Coup d'œil Ordr. Pig.* pp. 13, 55, n. 71 (part.) (1855); *id. Icon. Pig.* pl. 35 (1857); *Rchb. Tauben*, i. p. 120, t. 230. f. 1285 (bad) (1862).

Globicera mysticivora, *Bp. Consp. Av.* ii. p. 31 (1854) (*ex Sonnerat*); *id. Compt. Rend.* xxxix. p. 1073 (1854), xl. p. 217, n. 75 (1855); *id. Coup d'œil Ordr. Pig.* pp. 13, 55, n. 75 (1855); *Rchnb. Tauben*, i. p. 120, ii. p. 186, *Novit. Suppl.* t. vii. f. 72 (*ex Sonnerat*) (1862); *Rosenb. N. T. N. I.* xxv. p. 249, n. 222 (1863); *id. J. f. O.* 1864, p. 132, n. 222 (part.); *G. R. Gr. Hand-list*, ii. p. 229, n. 9175 (part.) (1870); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 281 (Ceram!) (1890).

Carpophaga globicera, *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 18, n. 7, specim. *a*, *b* (1856).

Carpophaga sundevalli, part., *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 18, n. 8 (specim. ex Waigiou) (1856); *id. Cat. B. New Guin.* p. 47 (part.) (1859); *id. P. Z. S.* 1861, p. 437 (part., Waigiou and Mysol); *Wall. Ibis*, 1861, p. 290; *Finsch, Neu-Guin.* p. 177 (1865).

Carpophaga myristicivora, *Sclat. Journ. Pr. Linn. Soc.* ii. p. 167, n. 138 (1858) (*ex Sonnerat*); *G. R. Gr. P. Z. S.* 1858, p. 196; *id. Cat. B. New Guin.* pp. 47, 61 (1859); *id. P. Z. S.* 1861, p. 437 (part.); *Finsch, Neu-Guin.* p. 177 (part.) (1865); *Gieb. Thes. Orn.* i. p. 586 (part.) (1872); *Salvad. Ann. Mus. Civ. Gen.* ix. p. 200, sp. 36 (1876), x. p. 158, sp. 142 (1877); *id. Monogr. sottogen.* Globicera, p. 9 (1878); *Editors, Ibis*, 1879, p. 213; *Salvad. Ibis*, 1879, p. 364; *D'Alb. Nuova Guin.* p. 582 (1880); *Salvad. Orn. Pap. e Mol.* ii. p. 74 (1882); *Nehrk. J. f. O.* 1885, p. 34; *Guillem. P. Z. S.* 1885, pp. 575 (Weeda Isl.), 659; ? *Lister, P. Z. S.* 1888, p. 522; *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 55 (*Agg. Orn. Pap. e Mol.* p. 181) (1891).

Carpophaga pacifica, *G. R. Gr. P. Z. S.* 1858, p. 196; *id. Cat. B. New Guin.* p. 61 (1859); *id. P. Z. S.* 1861, p. 437; *Finsch, Neu-Guin.* p. 177 (1865); *Gieb. Thes. Orn.* i. p. 587 (1872).

Globicera sundevalli, *Rosenb.* (*nec Bp.*) *N. T. N. I.* xxv. p. 249, n. 223 (1863); *id. J. f. O.* 1864, p. 132, n. 223 (ex Waigiou).

Muscadivora myristicivora, *Schleg. Dierent.* p. 210 (1864).
Carpophaga tumida, *Wall. Ibis*, 1865, p. 382, n. 47 (Waigiou, Mysol, New Guinea); *id. Malay. Archip.* ii. p. 344 (1869); *Schleg. Mus. P.-B.* Columbæ, p. 81 (1873); *Salvad. Ann. Mus. Civ. Gen.* vii. p. 788, n. 131 (1875); *Rosenb. Malay. Archip.* p. 561 (1879).
Carpophaga roseinucha, part., *Schleg. N. T. D.* iii. pp. 197, 344 (1865).
Globicera myristicivora, part., *G. R. Gr. Hand-list*, ii. p. 229, n. 9175 (1870).
Globicera tumida, part., *G. R. Gr. op. cit.* n. 9176 (1870).
? Carpophaga temmincki, *Tristr.* (*nec Wall.*?) *Cat. Coll. B.* p. 43 (Waigiou, New Guinea) (1889).

Adult. Head, neck, and upper breast pale ashy; frontal edge and chin white; hind neck pale vinous; lower breast and abdomen pale vinous; under tail-coverts chestnut: back, rump, and upper tail-coverts metallic green with some blue tinge; quills and tail above dark steel-blue; quills and tail below brown; under wing-coverts dark grey: bill and knob at the base lead-black; feet and irides red. Length about 19 to 18·25 inches, wing 10·25 to 9·8, tail 6, bill 1 to 0·9, tarsus 1·25.

Young. No knob at the base of the bill; under tail-coverts of a pale chestnut, and tail above more green.

Hab. Western New Guinea and the surrounding Western Papuan Islands.

a. Ad. st.	New Guinea.	J. Beale, Esq. [P.].
b. Ad. st.	New Guinea.	Purchased.
c. Ad. sk.	N.W. New Guinea.	Salvin-Godman Coll.
d, e. ♂ ♀ ad. sk.	Waigiou.	Wallace Coll. (Types of *Carpophaga tumida*, Wall.)
f. Ad. sk.	Waigiou (*Rosenberg*).	Salvin-Godman Coll.
g. ♀ ad. sk.	Mysol.	Wallace Coll.
h, i. ♀ ad. sk.	Mysol, Jan., June (*Rosenberg*).	Tweeddale Coll.

4. Globicera rubricera.

Columba pinon (!), *Less.* (*nec Q. et G.*) *Voy. Coq. Zool.* i. p. 342 (1826) (Nouvelle Irlande).
Carpophaga rubricera, *G. R. Gr. Mus. Brit.* (*Bp. Consp. Av.* ii. p. 31) (1854, November 8); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 18 (part., specim. *a* only) (1856*); ? *Sclat. P. Z. S.* 1862, p. 141 (Solomon Islands!); *Wall. Ibis*, 1865, p. 383, n. 49; ? *Sclat. P. Z. S.* 1869, pp. 119, 123, 124 (part.); *Gieb. Thes. Orn.* i. p. 588 (1872); *Schleg. Mus. P.-B.* Columbæ, p. 81 (New Ireland) (1873); *Salvad. Ann. Mus. Civ. Gen.* ix. p. 200, n. 38 (part.) (1876); *Sclat. P. Z. S.* 1877, p. 109 (part.), 1878, pp. 289, 671; *Elliot, P. Z. S.* 1878, p. 549; *Salvad. Monogr. sottogen.* Globicera, p. 13 (1878); *Finsch, P. Z. S.* 1879, p. 13; *Salvad. Ibis*, 1879, p. 364; *Brown, P. Z. S.* 1879, p. 451; *Layard, Ibis*, 1880, p. 306 (New Hanover); *Finsch, Ibis*, 1881, pp. 535, 538 (New Britain); *Tristr. Ibis*, 1882, p. 144, n. 79; *Salvad. Orn. Pap. e Mol.* iii. pp. 79, 557 (1882); *Finsch, Vög. der Südsee*, p. 18 (New Britain) (1884); *Sharpe, in Gould's B. New Guin.*

* Mr. Gray gives the incomplete reference P. Z. S. 1853, p. . . . , which is certainly a mistake.

pt. xix. pl. 7 (1835); *Tristr. Cat. Coll. B.* p. 43 (New Hanover) (1889); *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 55 (*Agg. Orn. Pap. e Mol.* p. 181) (1891).

Globicera rubricera, *Bp. Consp. Av.* ii. p. 31 (1854) (New Ireland); *id. Compt. Rend.* xxxix. p. 1073 (1854), xl. p. 217, n. 77 (1855); *id. Coup d'œil Ordr. Pig.* pp. 14, 55, n. 77 (1855), xli. p. 1111 (1855), xliii. p. 835 (1856); *id. Rev. et Mag. de Zool.* 1856, p. 403; *id. Icon. Pig.* pl. 39 (1857); *Rchnb. Tauben*, i. p. 121 (1862); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 281 (1890).

Carpophaga lepida, *Cass. Proc. Ac. Nat. Sc. Philad.* 1854 (December), p. 230 (Northern Australia?); *Bp. Compt. Rend.* xli. p. 1111 (1855), xliii. p. 835 (1856); *id. Rev. et Mag. de Zool.* 1856, p. 403.

Columba oceanica, *Mus. Lugd.* (*nec Less.*) *fide Bp. Compt. Rend.* xliii. p. 835 (1856).

Carpophaga (Globicera) rubracera, *G. R. Gr. Cat. B. Trop. Isl.* p. 41 (1859).

Carpophaga (Zenœnas) pinon, *G. R. Gr.* (*nec Q. et G.*) *Cat. B. Trop. Isl.* p. 41 (1859) (New Ireland, *ex Lesson*).

Muscadivora rubricera, *Schleg. Dierent.* fig. p. 209 (1864).

Globicera rubracera, part., *G. R. Gr. Hand-list*, ii. p. 229, n. 9177 (1870).

Carpophaga (Globicera) rubricera, *Cab. & Rchnw. J. f. O.* 1876, p. 325, n. 83 (New Ireland, New Hanover).

Adult. Head, throat, and breast pale vinous, merging into the deep chestnut colour of the abdomen, flanks, vent, and under tail-coverts; periophthalmic feathers, frontal edge, and chin whitish; lower hind neck and upper mantle pale grey; back, rump, upper tail-coverts, and wings splendid bronze-green, in some specimens greener than in others; primaries and tail-feathers deep steel-blue, tinged with green on the outer edges and tips; under wing-coverts grey; quills underneath dark greyish; tail underneath black: bill black; knob at the base of the bill and feet red. Total length about 16 inches, wing 10, tail 6, bill 1·1, tarsus 1·15.

Hab. New Ireland, New Britain, New Hanover, and Duke of York Island.

a. Ad. st.	No locality.	Purchased. (Type of species.)
b, *c*, *d*. Ad. sk.	Duke of York Island (*Rev. G. Brown*).	Salvin-Godman Coll.
e, *f*. Ad. sk.	Duke of York Island (*Rev. G. Brown*).	Tweeddale Coll.
g, *h*. ♂ ♀ ad. sk.	Duke of York Island, Sept., Dec. (*Kleinschmidt*).	Sharpe Coll.
i. Ad. sk.	New Ireland.	J. Cockerell, Esq. [P.].

5. Globicera rufigula.

Carpophaga rubricera, part., *G. R. Gr. List B. Brit. Mus.*, Columbæ, p. 13, n. 6 (specim. *b*, San Christoval) (1856); *Sclat. P. Z. S.* 1869, pp. 119, 123, 124 (part.), 1877, p. 109 (part.).

Globicera rubricera, part., *Bp. Compt. Rend.* xliii. p. 835 (1856).

Carpophaga rufigula, *Salvad. Atti R. Ac. Sc. Tor.* xiii. p. 533 (1878); *id. Monogr. sottogen.* Globicera, p. 14 (1878); *id. Ibis*, 1879, pp. 326, 364; *Rams. Pr. Linn. Soc. N. S. W.* iv. p. 72 (1879); *Editors, Ibis*, 1880, pp. 139, 307; *Tristr. Ibis*, 1880, p. 247,

1882, p. 144; *Salvad. Orn. Pap. e Mol.* iii. p. 80 (1882); *Tristr. Cat. Coll. B.* p. 43 (1889); *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 55 (*Agg. Orn. Pap. e Mol.* p. 181) (1891).

Carpophaga (Globicera) richardsi, *Tristr. Ibis*, 1879, p. 443 (Solomon Isl.); *Rchnw. & Schalow, J. f. O.* 1879, p. 424; *Salvad. Ibis*, 1880, p. 131.

Carpophaga (Globicera) rufigula, *Salvad. Ibis*, 1880, p. 131; *Rams. Pr. Linn. Soc. N. S. W.* vii. pp. 36, 668 (1882).

Globicera richardsi, *Tristr. Ibis*, 1880, p. 247.

Carpophaga sp. inc., *Layard, Ibis*, 1880, p. 307.

Globicera rufigula, *Grant, P. Z. S.* 1887, p. 332 (Malayta), 1888, p. 199 (Guadalcanar).

Adult male. Head, neck, upper mantle, and crop-region grey; cheeks, ear-coverts, and throat pale vinous; chin whitish; back, rump, upper tail-coverts, and wings splendid bronze-green with some bluish tinge; breast vinous, changing into vinous chestnut on the abdomen and vent; under tail-coverts cinnamon; primaries black, deep steel-blue on the outer webs, dull dark grey underneath; under wing-coverts grey; tail above deep steel-blue, edged with blue on the outer webs, underneath brown-black: bill black; knob at the base of the bill and feet probably red: "eyes dark red" (*Brenchley*). Total length about 16 inches, wing 9·5, tail 5·75, bill 1·3, tarsus 1·1.

Hab. Solomon Islands.

a. ♂ ad. sk.	San Cristoval, Sept.	J. Brenchley, Esq. [P.] (Type of species.)
b. ♂ ad. sk.	San Cristoval, Dec. (*J. Macgillivray*).	Voy. of H.M.S. 'Herald.'
c. ♂ ad. sk.	San Cristoval, Sept.	Gould Coll.
d. ♂ ad. sk.	Malayta.	C.M. Woodford, Esq. [C.].

6. Globicera auroræ.

Carpophaga auroræ, *Peale, Un. St. Expl. Exp.* viii. p. 201, pl. 56 (1848) (Aurora or Maitea Island, one of the Society Islands); *Hartl. Wiegm. Arch. f. Naturg.* 1852, pp. 116, 134; *id. J. f. O.* 1854, p. 167; *Cass. Pr. Ac. Nat. Sc. Philad.* 1854, p. 230; *id. Un. St. Expl. Exped., Ornith.* p. 256, pl. 24 (1858); *Gieb. Thes. Orn.* i. p. 584 (1872); *Salvad. Monogr. sottogen.* Globicera, p. 15 (1878); *id. Ibis*, 1879, p. 364; *Wiglesw. Aves Polynes.* p. 52, n. 208 (1891).

Globicera auroræ, *Bp. Consp. Av.* ii. p. 32 (1854); *id. Compt. Rend.* xxxix. p. 1072 (1854), xl. p. 217, n. 79 (1855); *id. Coup d'œil Ordr. Pig.* pp. 13, 55, n. 79 (1855), xliii. p. 835 (1856); *Rchnb. Tauben*, ii. p. 186, *Novit. Suppl.* t. vi. ff. 75–76 (1862); *G. R. Gr. Hand-list*, ii. p. 229, n. 9183 (1870).

Carpophaga (Globicera) auroræ, *G. R. Gr. Cat. B. Trop. Isl.* p. 41 (1859).

? Carpophaga aurora, *Garrod, P. Z. S.* 1874, p. 256.

Adult male (type). Head, neck, and underparts pale cinereous, nearly white at the bases of both mandibles, very dark on the lower abdomen and thighs; under tail-coverts dark bottle-green;

back, rump, and wings dark metallic green, more or less tinged with steel-blue; the green colour of the back sharply defined from the cinereous of the neck; tail deep steel-blue, tinged with green towards the base; under wing-coverts dark metallic green; quills and tail underneath brown-black: bill horn-black: "feet lake-red; irides bright crimson" (*Peale*). Total length about 17 inches, wing 10·5, tail 7, bill 0·93, tarsus 1·5.

Hab. Aurora or Maitea Island, Society Group.

7. Globicera wilkesi.

Carpophaga wilkesii, *Peale, Un. St. Expl. Exp.* p. 203, pl. 58 (1848) (Tahiti); *Hartl. Wiegm. Arch. f. Naturg.* 1852, pp. 116, 134; *id. J. f. O.* 1854, p. 169; *Cass. Pr. Ac. Nat. Sc. Philad.* 1854, p. 230; *id. Un. St. Expl. Exp., Orn.* p. 258, pl. 25 (1858); *Rchnb. Tauben*, ii. p. 183, *Novit. Suppl.* t. vi. f. 73 (1862); *Salvad. Monogr. sottogen.* Globicera, p. 16 (1878); *id. Ibis*, 1879, p. 364; *Wiglesw. Aves Polynes.* p. 52, n. 207 (1891).

Globicera forsteri, part., *Bp. Consp. Av.* ii. p. 30 (1854); *id. Compt. Rend.* xxxix. p. 1072 (1854), xl. p. 217, n. 72 (1855); *id. Coup d'œil Ordr. Pig.* pp. 13, 55, n. 72 (1855); *Rchnb. Tauben*, i. p. 120 (part.) (1862).

Globicera wilkesi, *Bp. Compt. Rend.* xliii. p. 835 (1856); *id. Icon. Pig. in the text of* Serresius galeatus (1857).

Carpophaga (Globicera) wilkesii, *G. R. Gr. Cat. B. Trop. Isl.* p. 41 (1859).

Carpophaga forsteri, part., *Gieb. Thes. Orn.* i. p. 585 (1872).

Serresius forsteri, part., *G. R. Gr. Hand-list*, ii. p. 229, n. 9186 (1870).

Adult male (type). Head, neck, and underparts dark fuliginous, lightest on the throat and abdomen, darkest on the upper part of the head and hind neck; narrow band at the base of the bill whitish; back, rump, and wings above dark metallic green, more or less tinged with blue; tail dark steel-blue, with a green tinge towards the base; under wing-coverts and under tail-coverts dark bottle-green; quills and tail underneath brown-black: "bill black; feet orange-brown; irides lake-red; nail sepia-brown" (*Peale*). Total length about 17 inches, wing 11, tail 6·5, bill 0·82, tarsus 1·4.

Hab. Tahiti, Society Islands *.

15. CARPOPHAGA.

Type.

Carpophaga, *Selby, Nat. Libr., Pigeons*, p. 112 (1835) .... C. ænea †.
Muscadivora, *Schleg. De Dierent.* p. 209 (1864)(=Carpophaga).

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* This and the preceding species are only known from the types in the Smithsonian Institution, and I have to thank Mr. Ridgway for having obtained leave from the authorities of that Institution for the specimens to be sent to me for identification and description.

† Selby does not designate the type of the genus; he says that *Columba magnifica*, Temm., is one of the most beautiful species. Ornithologists have agreed to recognize as type *C. ænea*, Linn., this being the oldest species known (*cf.* G. R. Gray, Gen. B. ii. p. 468; Bp. Consp. Av. ii. p. 32).

Cf. *Cassin*, "*A List of Pigeons of the Genus* Carpophaga" (*Pr. Ac. Nat. Sc. Philad.* 1854, pp. 227–232).

Range. From India, through the Malay Archipelago to Polynesia generally.

Key to the Subgenera.

a. General plumage mostly metallic on the upper parts.
  a'. Tail uniform.
    a''. Inner primaries of normal shape .... α. CARPOPHAGA, p. 182.
    b''. Inner primaries obliquely cut at the tip; first primary much scooped on the inner web ..... β. PTILOCOLPA, p. 205.
  b'. Tail with a grey band either at the tip or about the middle ..... γ. ZONOPHAPS, p. 207.
b. General plumage grey with no metallic colours on the upper parts.
  c'. Inner primaries broad and obliquely cut at the tip; tail rather long and with a broad light grey band at the tip ..... δ. DUCULA, p. 214.
  d'. Inner primaries normal.
    d''. Lores naked: a narrow white band at the tip of the tail ..... ε. CRYPTOPHAPS, p. 219.
    e''. Lores feathered, but periophthalmic region broadly naked; general plumage grey, or slate-black ..... ζ. ZONŒNAS, p. 220.

α. CARPOPHAGA.

Key to the Species.

Tail uniform, with no light band and no chestnut colour below; back and wings mostly metallic green, in some species with a mealy or greyish appearance.
  a. No pectoral band.
    a'. General plumage very dark; underparts dark grey, washed with purple ..... *whartoni*, p. 184.
    b'. Underparts light grey or vinous grey.
      a''. Under tail-coverts not pure chestnut.
        a'''. Under tail-coverts metallic bottle-green; breast deep vinous..... *ænothorax*, p. 184.
        b'''. Under tail-coverts dull chestnut, the longest tinged with dull green, grey colour with no vinous tinge whatever; back, wings, and tail very dark green ..... *insularis*, p. 185.
      b''. Under tail-coverts pure chestnut, or cinnamon.
        a''. Back and wings metallic green, more or less bluish.
          a'. Grey colour of the head, neck, and underparts with no vinous colour whatever ..... *consobrina*, p. 186.

b^4. Grey colour partly tinged or washed with vinaceous.
a^5. Grey colour of the hind neck sharply defined from the metallic-green colour of the back; tail above deep steel-blue.
a^6. Larger, wing 12–38 to 10–22 inches: head, neck, and underparts very light grey; occiput pale vinous ..... *concinna*, p. 186.
b^6. Smaller, wing 9·98 to 9·11 inches: head and neck grey; breast and abdomen vinaceous *geelvinkiana*, p. 188.
b^5. Grey colour of the hind neck more or less gradually merging into the metallic green of the back; tail above metallic green, more or less blue, especially in Bornean and Palawan specimens of *C. ænea*.
c^6. Nape with a coppery chestnut patch.
a^7. Nape-patch paler; upper parts golden green ..... *paulina*, p. 188.
b^7. Nape-patch darker; upper parts coppery golden green. *pulchella*, p. 189.
c^7. Nape-patch small, and darker than in *C. paulina*; head and neck very slightly washed with vinous ..... *nuchalis*, p. 190.
d^6. Nape with no coppery chestnut patch.
d^7. Head, neck, and underparts greyish vinaceous .. *ænea*, p. 190.
e^7. Head, neck, and underparts grey, vinous colour confined to the cheeks and throat.. *rhodinolæma*, p. 196.
d'''. Back and wings greyish or mealy bronze-green.
c^4. Upper part of the head grey.
c^5. Vinaceous light colour confined to the cheeks and throat .... *van-wycki*, p. 196.
d^5. Vinaceous greyish colour of the cheeks and throat covering also the breast..... *pistrinaria*, p. 197.
d^4. Head pale vinaceous or rose-colour. *rosacea*, p. 193.
c''. Under tail-coverts not chestnut, but light grey or pale buff colour.
e'''. Under wing-coverts and under surface of quills grey.
e^4. Back and wings metallic golden green.
e^5. Head and neck brown, or slate-grey .... *perspicillata*, p. 199.
f^5. Head and neck light grey .... *neglecta*, p. 200.

*f*⁴. Upper parts not metallic golden green.
*g*⁵. Tail above dull metallic bottle-green ..... *pickeringi*, p. 201.
*h*⁵. Tail above, like the back and wings, dark ashy brown ..... *cineracea*, p. 202.
f'''. Under wing-coverts and bases of the inner webs of the quills underneath cinnamon ..... *latrans*, p. 202.
b. A dark pectoral band; under tail-coverts chestnut edged with whitish at the tips .. *zoëæ* *, p. 204.

1. Carpophaga whartoni.

Carpophaga whartoni, *Sharpe, P. Z. S.* 1887, p. 515, pl. xliii. (Christmas I.); *Lister, P. Z. S.* 1888, p. 520.

Adult female. Upper parts, including the hind neck and occiput, dark metallic bronze-green, with a blue tinge on the edges of some of the feathers; frontal edge whitish; forehead, crown, cheeks, and throat dark grey, merging into the metallic-green colour of the upper parts lower throat dark metallic green like the upper parts; breast and abdomen dark vinous purple, changing into dark grey on the sides, vent, and tibial feathers; under tail-coverts chestnut; quills like the back, except on the inner webs where they are blackish; under wing-coverts dark grey, with a greenish lustre; quills underneath dark grey; tail above dark metallic green, underneath blackish brown: bill black; feet crimson. Total length about 16 inches, wing 10, tail 7, bill 0·8, tarsus 1·1.

Male. The skin of this sex, preserved in spirits, is rather discoloured, but does not seem to differ from the female.

Hab. Christmas Island, Indian Ocean.

a. ♂ ad. sk.	Christmas Island.	Capt. Maclear, R.N. [P.]. (Type of species.)
b. ♀ ad. sk.	Christmas Island.	J. J. Lister, Esq. [P.].

2. Carpophaga œnothorax. (Plate VI.)

Carpophaga œnothorax, *Salvad. Ann. Mus. Civ. Gen.* (2) xii. p. 139 (1892).

Adult male. Head, neck, abdomen, sides, and tibial feathers ashy; frontal edge and throat white; breast deep vinous; back, rump, upper tail-coverts and wings metallic bronze-green, some feathers, especially of the rump, with bluish reflections; primaries and outer secondaries blue-green, underneath brown slate-grey; under wing-coverts greenish grey; tail above of a beautiful dark

* Giebel (Thes. Orn. i. p. 584) by mistake mentions a *Carpophaga davidiana*, instead of *Carpodacus davidianus*, Milne-Edw. Nouv. Arch. Mus. i. (1865), p. 19, t. 2. ff. 2, 3.

greenish blue, underneath greenish brown; under tail-coverts bronze-green, with the base more or less chestnut: "bill ashy; irides and feet red" (*Modigliani*). Length 15·11 inches, wing 11·22, tail 5·89, bill 0·86, tarsus 1·29.

Female. Like the male.

Hab. Engano, off the West coast of Sumatra.

a, b. ♂ ♀ ad. sk.	Engano.	Dr. Modigliani [C.]. (Two of the types of the species.)

3. Carpophaga insularis.

Carpophaga sylvatica, var., *Blyth, J. A. S. B.* xv. p. 371 (1846); *id. Cat. B. Mus. A. S. B.* p. 231, n. 1401 (part.) (1849); *Hartl. J. f. O.* 1854, p. 319.

Carpophaga ænea, part., *Bp. Consp. Av.* ii. p. 32 (specim. ex ins. Nicobaricis) (1854); *Gieb. Thes. Orn.* i. p. 585 (1872).

Carpophaga insularis, *Blyth, J. A. S. B.* xxvii. p. 270 (1858); *Wall. Ibis*, 1865, pp. 383, 398; *id. J. f. O.* 1866, p. 280; *Blyth, Ibis*, 1868, p. 133; *G. R. Gr. Hand-list*, ii. p. 228, n. 9174 (1870); *Ball, J. A. S. B.* xxxix. pt. 2, p. 32 (1870); *id. Str. Feath.* i. p. 79 (1873) (Nicobars); *Hume, Str. Feath.* ii. p. 262 (1874); *Wald. Tr. Zool. Soc.* ix. p. 216 (1875); *Hume, Str. Feath.* viii. p. 109, n. 780 bis (1879); *Legge, B. of Ceyl.* p. 719 (1880); *Tweedd. Orn. Works*, p. 379 (1881); *Tristr. Cat. Coll. B.* p. 42 (1889).

Carpophaga ænea, var. nicobarica, *Pelz. Novara Exped., Vögel*, p. 105 (1865).

Adult male. Head, neck, upper mantle, breast, and abdomen grey, somewhat lighter on the forehead, and with no tinge whatever of vinaceous; back, rump, and wings dark metallic green, with a bluish tinge on some feathers; under tail-coverts dull chestnut, more or less changing into dark green, especially on the longest ones; quills above black, with the outer webs dark greyish green, with a dusty appearance, underneath brown-grey; under wing-coverts grey with a greenish lustre; tail above dark bluish green, underneath blackish brown: "legs and feet dull deep pink, pinkish red, or livid purple; bill pale plumbeous, paler at tip, and darker on cere and base; irides sometimes pale ruby-red, sometimes clear, and sometimes dull lake-red; eyelid pale lavender. Length 17·5 to 19·5 inches, wing 9 to 10·25, tail from vent 6 to 7, bill at front 1 to 1·27, tarsus 1·1 to 1·25" (*Hume*).

Female. Similar to the male.

Hab. Nicobars.

a. ♂ ad. sk.	Great Nicobar, April (*A. de Roepstorff*).	Hume Coll.
b, c, d. ♂ ♀ ad. sk.	Camorta I., Jan., Feb. (*W. Davison*).	Hume Coll.
e, f. ♂ ♀ ad. sk.	Camorta I., Dec., Jan. (*R. J. Wimberley*).	Tweeddale Coll.
g. ♂ ad. sk.	Nancowry I., Feb. (*W. Davison*).	Hume Coll.

h. ♂ ad. sk.	Nancowry I., Feb. (*R. J. Wimberley*).	Tweeddale Coll.
i. ♀ ad. sk.	Katchall I., Jan. (*W. Davison*).	Salvin-Godman Coll.
k, l, m. ♂ ♀ ad. sk.	Katchall I., Jan., Feb. (*W. Davison*).	Hume Coll.
n. ♂ ad. sk.	Katchall I., Jan. (*R. J. Wimberley*).	Tweeddale Coll.
o, p, q. ♂ ♀ ad. sk.	Trinkut I., Jan., Feb. (*W. Davison*).	Hume Coll.
r. ♀ ad. sk.	Trinkut I., Feb. (*R. J. Wimberley*).	Tweeddale Coll.
s–w. ♂ ♀ ad. sk.	Bompoka I., Jan., March (*W. Davison*).	Hume Coll.
x–b'. ♂ ♀ ad. sk.	Teressa I., Jan. (*W. Davison*).	Hume Coll.
c'. ♀ ad. sk.	Tilliangchoung I., March (*A. O. H.*).	Hume Coll.
d', e'. ♂ ad. sk.	Treis I., March (*W. Davison*).	Hume Coll.
f'. ♂ ad. sk.	Trak I., March (*W. Davison*).	Hume Coll.
g'. Ad. sk.	Pelu Milu I., Jan. (*W. Davison*).	Hume Coll.

4. Carpophaga consobrina.

? Carpophaga perspicillata, *Rosenb.* (*nec Temm.*) *Versl. Eil. Nias*, p. 20 (18— ?).

Carpophaga ænea, *Rosenb.* (*nec Linn.*) *Malay. Archip.* p. 220 (1878) (Nias).

Carpophaga consobrina, *Salvad. Ann. Mus Civ. Gen.* (2) iv. p. 558 (1887); *Modigl. Viaggio a Nias*, p. 441, pl. xv. (1890); *Oust. Bull. Soc. Philom.* (8) iv. p. 117 (1892).

Similar to *C. ænea*, but smaller, and besides it differs in having the grey colour of the hind neck sharply defined from the bronze-green colour of the back; the head, neck, breast, and abdomen are grey, with no vinous tinge; the feathers of the frontal edge and chin are not white; the under tail-coverts are of a deeper chestnut: "iris red; bill black at the base, pearl-grey at the tip; feet vinous red" (*Modigliani*). Length 15·53 inches, wing 9·19, tail 5·11, bill 0·78, tarsus 1·22 (*Mus. Genoa*).

Female. Like the male, only a little smaller (*Mus. Genoa*).

Obs. This species is similar to *C. insularis*, but has the under tail-coverts deep chestnut.

Hab. Nias Island.

5. Carpophaga concinna.

Carpophaga ænea, *Wall.* (*nec Linn.*) *Ann. & Mag. N. H.* (2) xx. p. 473 (Ké) (1857); *Schleg. N. T. D.* iii. p. 197 (part., specimen from Banda) (1865).

Carpophaga chalybura, *G. R. Gr.* (*nec Bp.*) *P. Z. S.* 1858, pp. 187, 196 (Aru Isl.); *id. Cat. B. New Guin.* pp. 47, 61 (1859); *id. P. Z. S.* 1861, p. 437; *Rosenb. N. T. N. I.* xxv. p. 249, n. 226 (1863); *Finsch, New-Guin.* p. 177 (1865).

Carpophaga chalybea (*errore*), *Rosenb. J. f. O.* 1864, p. 132, n. 226 (Aru).

Carpophaga concinna, *Wall. Ibis*, 1865, p. 383, n. 52 (Matabello, Sanguir Isl., Banda, Ké Isl.); *id. Malay. Archip.* i. p. 457 (1869); *Schleg. Mus. P.-B.* Columbæ, p. 82 (1873); *Brüggem. Abhandl. naturw. Ver. Brem.* v. p. 84 (1876); *Salvad. Ann. Mus. Civ. Gen.* ix. pp. 62, 65, 200, n. 39 (1876); *id. P. Z. S.* 1878, pp. 85, 89; *Rosenb. Malay. Archip.* p. 371 (1878–79); *Salvad. Ann. Mus. Civ. Gen.* xiv. p. 659 (1879); *id. Voy. Challeng., Birds*, pp. 66, 71 (1881); *Meyer, Verh. z.-b. Ges. Wien*, 1881, p. 772 (Babbar, Cera, Tenimber Isl.); *Salvad. Orn. Pap. e Mol.* iii. p. 81 (1882); *Sclat. P. Z. S.* 1883, pp. 51, 195, 200 (Larat, Maroe, Timorlaut); *Meyer, Sitz. u. Abh. Ges. Isis*, 1884, Abh. i. p. 51 (Dammar); *Forbes, P. Z. S.* 1884, p. 433; *Büttik. Not. Leyd. Mus.* viii. p. 66 (1886); *Blas. Ornis*, iv. p. 615 (1888); *Tristr. Cat. Coll. B.* p. 42 (1889); *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 55 (*Agg. Orn. Pap. e Mol.* p. 181) (1891).

Carpophaga roseinucha, part., *Schleg. N. T. D.* iii. p. 197 and follow., p. 344 (1865).

Carpophaga myristicivora, *Rosenb.* (*nec Scop.*) *Reis naar de Zuid-oostereil.* p. 81 (Ké Isl.) (1867).

Globicera tumida, part., *G. R. Gr. Hand-list*, ii. p. 229, n. 9176 (1870).

Carpophaga pacifica, part., *Gieb. Thes. Orn.* i. p. 487 (1873).

Adult male. Head, neck, breast, and abdomen light grey; frontal edge whitish; occiput and nape tinged with light vinous; under tail-coverts chestnut; grey colour of the neck sharply defined from the colour of the back; back, rump, upper tail-coverts, and upper wing-coverts metallic golden or bronze-green, with some blue reflections; quills steel blue-black, secondaries brighter, underneath slate-black; under wing-coverts dark grey, with some metallic golden-green lustre; tail above metallic steel-blue, below black: bill dark horn-colour; feet vinous red; iris pale yellow-orange; eyelids pale with a white edge. Length 21·22–18·86 inches, wing 12·38–10·22, tail 7·47–6·29, bill 0·90–0·78, tarsus 1·41–1·38.

Female. Somewhat smaller than the male.

There is a great difference in the size of the specimens, according to the localities; the Ké Islands birds are the largest of all.

Hab. Tenimber Islands, S.W. Papuan Islands—Aru and Ké Isl.; Moluccas—Tejoor, Matabello, Monawolka, Pandjang, Goram, Banda, Batang Kitjil, and Sanghir Islands.

a. Ad. st.	Moluccas.	E. Wilson, Esq. [P.].
b. ♂ ad. sk.	Aru I.	Wallace Coll.
c. ♂ ad sk.	Aru I. (*Wallace*).	Gould Coll.
d. ♀ ad. sk.	Aru I.	Salvin-Godman Coll.
e–h. ♂ ♀ ad. sk.	Ké Doulan.	'Challenger' Exp.
i, k, l. ♂ ad. et ad. sk.	Matabello.	Wallace Coll. (Types of species.)
m. ♂ ad. sk.	Dammar I., Banda Sea, Nov.	P. W. Bassett Smith, Esq. [P.].
n. ♀ ad. sk.	Banda.	'Challenger' Exp.
o. Ad. sk.	Tenimber I.	Tweeddale Coll.

p, q. ♂ ♀ ad. sk.	Tenimber I., Aug., Sept. (*H. O. Forbes*).	Salvin-Godman Coll.
r, s. ♂ ♀ ad. sk.	Tenimber I., Aug.	H. O. Forbes, Esq. [C.].
t. Ad. sk.	Sanghir I.	Tweeddale Coll.
u. Ad. sk.	Sanghir I.	Salvin-Godman Coll.

6. Carpophaga geelvinkiana.

Carpophaga geelvinkiana, *Schleg. Mus. P.-B.* Columbæ, p. 86 (1873); *Salvad. Ann. Mus. Civ. Gen.* ix. p. 200, n. 10 (1876); *Gieb. Thes. Orn.* iii. p. 793 (1877); *Rosenb. Malay. Archip.* p. 561 (1879); *Salvad. Orn. Pap. e Mol.* iii. p. 84 (1882).

Carpophaga roseinucha, *Rosenb.* (*nec Schleg.*) *Reist. naar Geelvinkb.* p. 36 (1875) (Mafoor).

Adult male. Head, neck, and upper breast grey; frontal edge whitish; the grey colour of the neck sharply defined from the colour of the back; lower breast and abdomen pale vinous; under tail-coverts chestnut; back, rump, upper tail-coverts, and upper wing-coverts metallic golden or bronze-green, with some blue reflections; quills steel blue-black; secondaries metallic blue-green; quills underneath slate-black; under wing-coverts dark grey; tail above metallic steel-blue, below black: "bill black; feet coral-red; iris golden yellow; eyelids yellow" (*Beccari*). Length 16·11–15·33 inches, wing 9·98–9·11, tail 6·09–5·89, bill 1·14–1·02, tarsus 1·25.

Female. Like the male.

The feathers on the frontal edge do not come forward in a point as in *C. concinna*, but keep backward at the base of the bill in a straight line.

Hab. Geelvink Bay Islands—Miosnom, Mafoor, Misori.

a, b. ♂ ♀ ad. sk.	Mysori (*Dr. A. B. Meyer*).	Tweeddale Coll.

7. Carpophaga paulina.

Columba ænea, ♀, *Temm. & Knip, Pig.*, fam. seconde, pl. 4 (1808–11); *Temm. Hist. Nat. Pig. et Gall.* i. pp. 91, 446 (1813); *Vieill. N. D.* xxvi. p. 363 (1818); *Steph. Gen. Zool.* xi. p. 21 (1819); *Desm. Dict. Sc. Nat.* xl. p. 315 (1826).

Columba ænea, part., *Wagl. Syst. Av.* Columba, sp. 15 (1827).

Carpophaga ænea, part., *G. R. Gr. Gen. B.* ii. p. 468, n. 1 (1844); *Rchnb. Syn. Av.* Columbariæ, *Novitiæ*, f. 3360 (1851).

Columba paulina, *Temm. in Mus. Lugd.* undè

Ducula paulina, *Bp. Consp. Av.* ii. p. 35 (1854); *id. Compt. Rend.* xxxix. p. 1076 (1854), xl. p. 217, n. 94 (1855); *id. Coup d'œil Ordre Pig.* pp. 16, 55, n. 94 (1855); *Rchnb. Tauben*, i. p. 115, t. 230 *b.* f. 3360 (1862), ii. p. 199, *Novit. Suppl.* t. vi. f. 69 (1862); ? *Sousa, Mus. Nac. Lisb.* Columbæ, p. 10 (1873) (Mindanao!).

Carpophaga rufinuchalis, *Cass. Pr. Ac. Nat. Sc. Philad.* 1854, p. 228 (1854).

Carpophaga paulina, *Bp. Compt. Rend.* xli. p. 247 (1855), xliii. p. 836 (1856); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 17 (1856); *Wall. P. Z. S.* 1862, p. 345 (Sula Isl.); *id. Ibis*, 1865, pp. 385, 398; *Finsch*,

Neu-Guin. p. 177 (1865); *Schleg. N. T. D.* iii. p. 200 (1866); *G. R. Gr. Hand-list*, ii. p. 228, n. 9168 (1870); *Wald. Tr. Zool. Soc.* viii. p. 83 (1872); *Gieb. Thes. Orn.* i. p. 587 (1872); *Schleg. Mus. P.-B.* Columbæ, p. 84 (1873); *Wald. Tr. Zool. Soc.* ix. p. 215 (1875); *Salvad. Ann. Mus. Civ. Gen.* vii. p. 672 (1875); *Sclat. P. Z. S.* 1876, p. 519; *Lenz, J. f. O.* 1877, p. 377; *Rosenb. Malay. Archip.* p. 275 (1878); *Meyer, Ibis*, 1879, pp. 135, 136; *Tweedd. Orn. Works*, pp. 183, 379 (1881); *Cab. J. f. O.* 1882, p. 125; *Blas. J. f. O.* 1883, p. 139; *Sclat. List Vert. An.* 8th ed. p. 443 (1883); *Guillem. P. Z. S.* 1885, p. 557 (Talisse Isl.); *Blas. Zeitschr. f. d. ges. Orn.* ii. p. 306 (1885), iii. p. 132 (1886); *Tristr. Cat. Coll. B.* p. 42 (1889).

Carpophaga rufinucha, *Bp. Compt. Rend.* xli. pp. 247, 658 (1855), xliii. p. 836 (1856).

Ducula rufinuchalis, *G. R. Gr. Hand-list*, ii. p. 230, n. 9200 (1870).

Carpophaga sylvatica, *Sclat.* (*nec Tickell*) *P. Z. S.* 1874, p. 695, 1876, p. 519.

Carpophaga paulinæ, *Brüggem. Abh. naturw. Ver. Brem.* v. p. 84 (1876); *Pelz. Verh. z.-b. Ges. Wien*, p. 719 (1876); *Heine & Rchnw. Nomencl. Mus. Hein. Orn.* p. 281 (Sulu!) (1890).

Adult. Head, neck, throat, breast, and lower surface delicate pale grey, deeply tinted on the vertex, throat, and abdomen with a roseate hue; under tail-coverts chestnut; forehead whitish; nape cupreous chestnut; entire back, upper tail-coverts, and all the upper wing-coverts metallic golden green; quills above greyish metallic green; under wing-coverts grey; tail above metallic green, underneath dark grey: "bill lead-blue, above nostrils to base red; iris deep red; eyelids red" (*Wallace*); feet vinous red (?). Length about 15 inches, wing 8·75, tail 5·5, bill 0·9, tarsus 1·05.

Hab. Celebes and Sula Islands.

a. Ad. st.	Celebes.	E. Wilson, Esq. [P.].
b. Ad. sk.	Celebes.	Tweeddale Coll.
c. Ad. sk.	Celebes (*Wallace*).	Gould Coll.
d, *e*. ♂ ad. et ad. sk.	Makassar (*Wallace*).	Gould Coll.
f. ♂ ad. sk.	Makassar.	Wallace Coll.
g. ♂ ad. sk.	Tondano.	Wallace Coll.
h. Ad. sk.	Menado.	Wallace Coll.
i, *k*. Ad. st.	Menado.	Hume Coll.
l. Ad. sk.	Sula Is.	Salvin-Godman Coll
m. Ad. sk.	Sula Is. (*Wallace*).	Gould Coll.

8. Carpophaga pulchella.

Carpophaga pulchella, *Wald. Ann. & Mag. N. H.* (4) xiv. p. 157 (1874); *Brüggem. Abh. naturw. Ver. Brem.* v. p. 84 (1876); *Gieb. Thes. Orn.* iii. p. 793 (1877); *Meyer, Ibis*, 1879, pp. 135, 146; *Tweedd. Orn. Works*, p. 288 (1881).

Adult. "Head, neck, throat, breast, lower surface, and under wing-coverts delicate pale grey, deeply tinted on the crown, throat, and abdomen with a roseate hue; forehead pure white; a broad triangular patch on the nape rich cupreous chestnut; entire back and all the wing-coverts and upper tail-coverts golden green or rich

copper-colour; first three primaries above dark slate-grey, the remainder washed with green; rectrices above green, with a cupreous tinge; under tail-coverts chocolate. Wing 8·5 inches, tail 5·5, bill from forehead 1·25, tarsus 1, middle toe with claw 1·9." (*Walden.*)

"A representative form of *C. paulina*, but differs by being copper-coloured instead of green; its dimensions are also less" (*Walden*). To me it appears doubtfully distinct.

Hab. Togian Islands, off the eastern coast of Celebes.

a. Ad. sk. Togian Islands (*A. B. Meyer*). Tweeddale Coll. (Type of species.)

9. Carpophaga nuchalis.

Carpophaga paulina, part., *Schleg. N. T. D.* iii. pp. 200, 201 (specim. from Luçon) (1866); *Wald. Tr. Zool. Soc.* viii. p. 83 (part.) (1872); *Schleg. Mus. P.-B.* Columbæ, p. 85 (specim. from Luzon) (1873); *Wald. Tr. Zool. Soc.* ix. p. 215 (1875); *Tweedd. Orn. Works*, p. 379 (part.); *Kutter, J. f. O.* 1882, p. 176 (Baatan, Luzon); ? *Hartert, Kat. Vogelsamml.* p. 189 (Mindoro) (1891).

? Ducula paulina, *Sousa, Mus. Nac. Lisb.* Columbæ, p. 10 (1873) (Mindanao!).

Carpophaga nuchalis, *Cab. J. f. O.* 1882, p. 126 (Luzon); *Kutter, J. f. O.* 1882, p. 177 (Baatan); *Rchnw. & Schal. J. f. O.* 1883, p. 403; *Hartert, Kat. Vogelsamml.* p. 189 (note) (1891).

Similar to *C. paulina* from Sula Islands, but a little smaller and with the rufous-brown spot on the nape smaller and darker, and with the grey colour of the head and neck very slightly washed with rose-colour (*Cabanis*).

It requires comparison.

Hab. Philippine Islands—Luzon, ? Mindoro, ? Mindanao.

10. Carpophaga ænea.

Palumbus moluccensis, *Briss. Orn.* i. p. 148, pl. xii. f. 2 (1760); *Less. Compl. de Buff., Ois.* viii. p. 81 (part.) (1837); *id. op. cit.* 2nd ed. p. 291 (part.) (1838).

Columba ænea, *Linn. S. N.* i. p. 283, n. 22 (1766); *Gm. S. N.* i. 2, p. 780, n. 22 (excl. var. β) (1788); *Lath. Ind. Orn.* ii. p. 602, n. 33 (excl. var. β) (1790); *Bonn. Enc. Méth.* i. p. 233 (1790); *Temm. & Knip, Pig.* i. fam. sec. pl. 3 (♂, *nec* pl. 4) (1808–11); *Temm. Pig. et Gallin.* i. pp. 86, 446 (part.) (1813); *Vieill. N. D.* xxvi. p. 363 (male) (1818); *Steph. Gen. Zool.* xi. p. 21 (male) (1819); *Horsf. Tr. Linn. Soc.* xiii. p. 184 (1821) (Java); *Raffl. Tr. Linn. Soc.* xiii. pt. 2, p. 316 (1822) (Sumatra); *Desm. Dict. Sc. Nat.* xl. p. 315 (part.) (1826); *Wagl. Syst. Av.* Columbæ, sp. 15 (part.) (1827); *Less. Tr. d'Orn.* p. 468 (part.) (1831).

Pigeon Ramier des Moluques, *D'Aubent. Pl. Enl.* 164 (17— ?); *Buff. Hist. Nat., Ois.* ii. p. 538 (1771).

Columba moluccensis, *Müll. S. N. Suppl.* p. 133, n. 35 *d* (1776); *Cass. Pr. Ac. Nat. Sc. Philad.* 1864, p. 248.

Nutmeg Pigeon, *Lath. Syn.* ii. 2, p. 636, n. 30 (1783).

Columba sylvatica, *Tickell, J. A. S. B.* ii. p. 581 (1833) (Jungles of Borabhúm and Dholbhúm).

Carpophaga ænea, *Selby, Nat. Libr., Pigeons*, p. 118 (1835); *Sw. Class. B.* ii. p. 348 (note) (1837); *Jerd. Madr. Journ.* xii. p. 11 (1840); *G. R. Gr. Gen. B.* ii. p. 468, n. 1 (part.) (1844); *Hartl. Syst. Verz.* p. 98 (1844); *Peale, U.S. Expl. Exped., Zool.* p. 198 (part., Mindanao) (1848); *Rchnb. Syn. Av. Novit.* Columbariæ, t. 230 *b.* f. 3359 (*nec* 3360) (1851); *Hartl. Arch. f. Naturg.* 1852, p. 115 (part., Mindanao); *Cass. Pr. Ac. Nat. Sc. Philad.* 1854, p. 227; *Bp. Consp. Av.* ii. p. 32 (part.) (1854); *id. Compt. Rend.* xxxix. p. 1074 (1854), xl. p. 217, n. 80 (1855); *id. Coup d'œil Ordre Pig.* pp. 14, 55, n. 80 (1855); *Gould, P. Z. S.* 1859, p. 150 (Tavoy); *G. R. Gr. P. Z. S.* 1861, p. 361; *Rchnb. Tauben*, i. p. 119, t. 230 *b.* f. 3359 (1862); *Sclat. P. Z. S.* 1863, p. 221 (Borneo); *Wall. P. Z. S.* 1863, p. 486 (Lombock, Flores); *Pelz. Novara Reis., Vög.* p. 105 (Java) (1865); *Wall. Ibis*, 1865, pp. 383, 397; *id. J. f. O.* 1866, p. 280; *Schleg. N. T. D.* iii. p. 197 (1866); *G. R. Gr. Hand-list*, ii. p. 228, n. 9170 (1870); *Gieb. Thes. Orn.* i. p. 583 (part.) (1872); *Wald. Ibis*, 1873, p. 314 (S. Andamans); *Schleg. Mus. P.-B.* Columbæ, p. 85 (1873) (Sumatra, Bangka, Java, Borneo, Soumbawa, Flores, Philippines); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 9 (1873); *Garrod, P. Z. S.* 1873, pp. 468, 639, 1874, p. 256; *Hume, Str. Feath.* ii. pp. 260, 424 (1874); *Salvad. Ucc. di Born.* p. 290 (1874); *Blyth & Wald. B. of Burm.* p. 144 (1875); *Wald. Tr. Zool. Soc.* ix. pp. 215, 251 (1875) (Philippines); *Hume, Nests & Eggs*, iii. p. 496 (1875); *id. Str. Feath.* iii. p. 103 (1875) (Pegu); *Legge, Ibis*, 1875, p. 399 (Ceylon); *Sharpe, Ibis*, 1876, p. 51; *Brüggem. Abh. Ver. Brem.* v. p. 461 (1876); *Ball, Str. Feath.* iv. p. 235 (1876); *Armstr. ibid.* p. 337 (1876); *Sharpe, Tr. Linn. Soc., Zool.* i. pp. 346, 353 (1876); *Inglis, Str. Feath.* v. p. 39 (1877); *Ball, ibid.* p. 418 (1877); *Tweedd. P. Z. S.* 1877, pp. 264 (Cebu), 832 (Mindanao), 1878, pp. 113 (Dinagat), 288 (Negros), 344 (Leyte), 623 (Palawan), 752 (Mindanao); *Rosenb. Malay. Archip.* p. 108 (Sumatra) (1878); *Hume & Davis. Str. Feath.* vi. p. 416 (1878) (Tenasserim); *Ball, Str. Feath.* vii. p. 224 (1878); *Hume, Str. Feath.* viii. pp. 67, 109, n. 780 (1879); *Tweedd. P. Z. S.* 1879, p. 73 (Basilan); *Sharpe, P. Z. S.* 1879, p. 348; *Tiraut, Bull. Com. Agr. et Ind. Cochinch.* (3) i. p. 141, n. 252 (1879); *Bingh. Str. Feath.* ix. p. 194 (1880); *Parker, ibid.* p. 481 (1880); *Wardl. Rams. P. Z. S.* 1880, p. 15; *Sharpe, P. Z. S.* 1881, p. 799; *Tweedd. Orn. Works*, pp. 245, 378, 379, 380, 412, 538, 559, 573, 594, 599, 618, 643, 650 (1881); *Wardl. Rams. Tweedd. Orn. Works*, App. p. 652 (1881); *Kelham, Ibis*, 1881, p. 527 (Malay Peninsula); *Blas. & Nehrk. Jahresb. Ver. Naturw. zur Braunschw.* 1881, p. 59 (Borneo); *Nichols. Ibis*, 1882, p. 65 (Sumatra); *Oates, Str. Feath.* x. p. 235 (1882); *Cab. J. f. O.* 1882, pp. 125, 126; *Kutter, J. f. O.* 1882, p. 177 (Philippines); *Salv. Cat. B. Strickl. Coll.* p. 553 (1882); *Nichols. Ibis*, 1883, p. 524; *Kutter, J. f. O.* 1883, p. 318; *Sclat. List Vert. An.* 8th ed. p. 443 (1883); *Blas. Verh. z.-b. Ges. Wien*, xxxiii. p. 62 (1883); *Oates, B. Brit. Burm.* ii. p. 301 (1883); *Meyer, Abbild. Vogel-Skel.* t. lviii. (1884) (Luzon); *Sharpe, Ibis*, 1884, p. 322 (Puerto Princesa); *Snellem. Sumatra-Exp., Vogels*, p. 48 (1884); *Vorderm. N. T. N. I.* xliv. p. 226 (1884) (Java); *Guillem. P. Z. S.* 1885, p. 270 (Sulu); *Bedd. P. Z. S.* 1885, p. 844; *Vorderm. N. T. N. I.* xlvi. pp. 25, 236 (1886); *Büttik. Not. Leyd. Mus.* ix. p. 76 (1886); *Anders. Journ. Linn. Soc.*,

Zool. xxi. p. 152 (Mergui Archip.) (1887); *Sharpe, Ibis*, 1888, p. 202; *Hume, Str. Feath.* xi. p. 294 (1888); *Everett, Journ. Str. Br. R. As. Soc.* 1889, p. 194; *id. P. Z. S.* 1889, p. 225; *Tristr. Cat. Coll. B.* p. 42 (1889); *Voderm. N. T. N. I.* xlix. p. 412 (1889), xl. p. 505 (1890); *Whiteh. Ibis*, 1890, p. 56 (Palawan); *Sharpe, Ibis*, 1890, pp. 134, 283; *Steere, List of Philipp. Birds*, p. 24 (1890); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 281 (1890); *Hartert, Kat. Vogelsamml.* p. 189 (1891); *id. J. f. O.* 1891, p. 300 (Mindoro).

Carpophaga sylvatica, *Blyth, J. A. S. B.* xiv. p. 856 (1845); *Beng. Sport Rev.* 1845, pl. 3; *Blyth, Ann. & Mag. N. H.* xix. p. 52 (1847); *id. Cat. B. Mus. A. S. B.* p. 231, n. 1401 (part.) (1849); *Kelaart, Prodr. Cat.* p. 130 (1852); *Bp. Consp. Av.* ii. p. 33 (1854); *id. Compt. Rend.* xxxix. p. 1074 (1854), xl. p. 217, n. 82 (1855); *id. Coup d'œil Ordre Pig.* pp. 14, 55, n. 82 (1855); *G. R. Gr. List B. Brit. Mus.*, Columbæ, p. 17 (1856); *Blyth, J. A. S. B.* xxvii. p. 270 (1858) (Andamans) (*Ibis*, 1859, p. 201); *id. Ibis*, 1859, p. 465; *Moore, P. Z. S.* 1859, p. 466 (Pinang); *Blyth, J. A. S. B.* xxx. p. 97 (1861) (Philippines); *Rchnb. Tauben*, i. p. 119 (1862), ii. p. 184 (1862); *Jerd. B. of Ind.* iii. p. 454 (1864); *Wall. Ibis*, 1865, pp. 383, 397; *id. J. f. O.* 1866, p. 280; *Schleg. N. T. D.* iii. p. 197 (1866); *Blyth, Ibis*, 1867, p. 148; *Beav. Ibis*, 1867, p. 332; *Blyth, Ibis*, 1868, p. 133; *Beav. Ibis*, 1868, p. 373; *Blyth, Ibis*, 1870, p. 173; *G. R. Gr. Hand-list*, ii. p. 228, n. 9167 (1870); *Swinh. Ibis*, 1870, p. 355 (Hainan); *id. P. Z. S.* 1871, p. 396; *Holdw. P. Z. S.* 1872, p. 466 (Ceylon); *Schleg. Mus. P.-B.* Columbæ, p. 86 (1873); *Legge, Ibis*, 1874, p. 25 (Ceylon); *David & Oust. Ois. Chine*, p. 381 (1877); *Tristr. Cat. Coll. B.* p. 43 (1889); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 281 (1890).

Carpophaga pusilla, *Blyth, J. A. S. B.* xviii. p. 816 (1849) (Nilgiris, *errore*); *id. Cat. B. Mus. A. S. B.* p. 232, n. 1402 (1849); *Layard, Ann. & Mag. N. H.* (2) xiv. p. 58 (1854); *Hartl. J. f. O.* 1854, p. 158; *Bp. Consp. Av.* ii. p. 33 (1854); *id. Compt. Rend.* xxxix. p. 1074 (1854), xl. p. 217, n. 83 (1855); *id. Coup d'œil Ordre Pig.* pp. 14, 55, n. 83 (1855); *Rchnb. Tauben*, i. p. 119 (1862); *Blyth, Ibis*, 1867, p. 148 (Malabar), 1870, p. 173 (Travancore, Ceylon); *Hume, Str. Feath.* ii. p. 260 (1874), vii. p. 424 (1878), viii. p. 109, n. 780 ter (1879).

Carpophaga chalybura, *Bp. Consp. Av.* ii. p. 32 (1854) (Philippines); *id. Compt. Rend.* xxxix. p. 1074 (1854), xl. p. 217, n. 81 (1855); *id. Coup d'œil Ordr. Pig.* pp. 14, 55, n. 81 (1855); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 17 (1856); *Bp. Icon. Pig.* pl. xlii. (1857); *Wall. Ibis*, 1861, p. 286 (Philippines); *Rchnb. Tauben*, i. p. 119 (1862); *Wall. Ibis*, 1865, pp. 383, 398; *id. J. f. O.* 1866, p. 280; *Mart. J. f. O.* 1866, p. 24; *G. R. Gr. Hand-list*, ii. p. 228, n. 9169 (1870); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 9 (1873); *Heine & Rchnw. Nomencl. Mus. Hein. Orn.* p. 281 (1890).

Muscadivora ænea, *Schleg. De Dierent.* p. 210 (1864).

Carpophaga ænea palawanensis, *Blas. Ornis*, iv. p. 316 (1888) (Palawan); *id. Ibis*, 1888, p. 374.

Adult male. Head, neck, breast, and abdomen grey, with a slight vinous tinge, scarcely perceptible on the breast: frontal edge and chin whitish; under tail-coverts deep chestnut; back, rump, upper tail-coverts, and wings bronze-green; quills and tail-feathers above metallic bluish green, below dark brown, almost black: "iris red; bill grey; the region of the nostrils dull red; edges of the

eyelids, legs, and feet purplish red" (*Oates*). Length about 17 inches, wing 9, tail 6·5, bill 0·88, tarsus 1·1.

Female. Like the male, but somewhat smaller.

Hab. India, Ceylon, Andamans, Indo-Burmese Countries, Cochin-China, Hainan, Sunda Islands, with Lombock and Flores, the Philippines and Sulu Islands.

Obs. 1st. The South Indian and Ceylon bird (*C. sylvatica*, Tick.) has smaller dimensions.

2nd. The Philippine bird (*C. chalybura*, Bp.) has the grey colour of the hind neck and upper mantle lighter and more sharply defined from the metallic-green back; the tail somewhat greener, with less bluish tinge.

3rd. The Palawan bird (*C. œnea palawanensis*, Blas.) has the tail darker and with a bluer tinge on the upper surface; in fact it is intermediate between Bornean specimens of *C. œnea*, which it resembles in the bluer tail, and the Philippine ones, with which it agrees in having the grey hind neck better defined from the metallic back.

4th. The Sulu bird is typical *C. œnea*, and not like the Philippine one.

a, b, c. Ad. st.	India.	Zoological Soc. Coll.
d. Ad. sk.	Bombay (*Col. Sykes*).	India Museum [P.].
e. ♂ ad. sk.	N. of Ellore, April.	Hume Coll.
f, g. ♂ ♀ ad. sk.	Kullar, Oct.	Hume Coll.
h, i, k. Ad. et juv. sk.	Malabar Coast.	Tweeddale Coll.
l. Ad. sk.	Calicut.	Hume Coll.
m. Ad. sk.	Anjango, Travancore, Dec.	Hume Coll.
n. Ad. st.	Ceylon.	Dr. Kelaart [P.].
o. ♂ ad. sk.	Ceylon, Jan. (*J. Chapman*).	Tweeddale Coll.
p–s. Ad. sk.	Ceylon (*H. Neville*).	Tweeddale Coll.
t, u. Ad. sk.	Ceylon.	Hume Coll.
v, w. Ad. sk.	Madras.	Rev. H. H. Baber [P.].
x. Ad. sk.	Madras (*R. G. W. R.*).	Tweeddale Coll.
y. ♂ ad. sk.	Badrachellum, S. Godavery, Feb.	W. T. Blanford, Esq. [P.].
z. ♀ ad. sk.	Orissa, Feb.	Hume Coll.
a'. Ad. sk.	Maunbhoom, March (*R. C. Beavan*).	Tweeddale Coll.
b'. Ad. sk.	Dacca.	Hume Coll.
c'. Ad. sk.	Nepal?	Salvin-Godman Coll.
d'. Ad. sk.	Sikhim.	Seebohm Coll.
e'. Ad. sk.	Sikhim Terai, Dec. (*L. Mandelli*).	Hume Coll.
f', g'. Ad. sk.	Darjeeling.	Hume Coll.
h', i'. Ad. sk.	Buxa Doars, Jan. (*L. Mandelli*).	Hume Coll.
k', l'. Ad. sk.	Bhotan Doars, Feb., April (*L. Mandelli*).	Hume Coll.
m'. Juv. sk.	Assam? (*Griffiths*).	India Museum.
n', o'. Ad. sk.	Assam (*Mr. Clelland*).	India Museum.
p'. ♂ ad. sk.	Dhollah, April (*J. Cockburn*).	Hume Coll.
q', r', s'. ♂ ♀ ad. sk.	Dibrughur, March, April, July (*J. R. Cripps*).	Hume Coll.

t', *u'*. ♂ ♀ ad. sk.	N. Khasia Hills, March (*A. W. Chennell*).	Tweeddale Coll.
v'. Ad. sk.	Naga Hills (*H. Godwin-Austen*).	Tweeddale Coll.
w'. Ad. sk.	Cachar.	Hume Coll.
x'. ♂ ad. sk.	Borongo, March (*J. Armstrong*).	Hume Coll.
y'. ♂ ad. sk.	China Ba-keer, Dec. (*J. Armstrong*).	Hume Coll.
z'. ♂ ad. sk.	Pegu, Feb.	E. W. Oates, Esq. [C.].
a''–d''. ♂ ♀ ad. sk.	Tonghoo, Feb., Aug. (*R. G. W. R.*).	Tweeddale Coll.
e''. ♀ ad. sk.	Pahpoon, Jan. (*W. Davison*).	Hume Coll.
f''. ♂ ad. sk.	Kaukaryit, May (*J. Darling*).	Hume Coll.
g''. ♀ ad. sk.	Salween River, Aug. (*R. C. Beavan*).	Tweeddale Coll.
h'', *i''*. ♂ ♀ ad. sk.	Meetan, Feb. (*W. Davison*).	Hume Coll.
k''. ♂ ad. sk.	Houngthraw, Nov.	C. J. Bingham, Esq. [P.].
l''. ♀ ad. sk.	Cheunkhon, Feb. (*C. T. Bingham*).	Hume Coll.
m''–p''. ♂ ♀ ad. sk.	Amherst, Jan., March, & Dec. (*W. Davison*).	Hume Coll.
q''. ♂ ad. sk.	40 miles south of Yea, April (*W. Davison*).	Hume Coll.
r''. ♀ juv. sk.	Near Tavoy, April (*W. Davison*).	Salvin-Godman Coll.
s'', *t''*. ♂ ♀ ad. sk.	Near Tavoy, April (*W. Davison*).	Hume Coll.
u''–y''. ♂ ♀ ad. sk.	Bankasoon, Feb., April, & Dec. (*W. Davison*).	Hume Coll.
z'', a^3, b^3. Ad. sk.	Cochin China, Aug.	M. St. Pierre [P.].
c^3. Ad. sk.	Hainan, March (*R. Swinhoe*).	Salvin-Godman Coll.
d^3. Ad. sk.	Hainan, March.	R. Swinhoe, Esq. [C.].
e^3, f^3. Ad. sk.	Hainan, Feb., March (*R. Swinhoe*).	Seebohm Coll.
g^3. Ad. sk.	Hainan, March (*R. Swinhoe*).	Tweeddale Coll.
h^3. ♂ ad. sk.	Kossoom, May (*J. Darling*).	Hume Coll.
i^3, k^3. Ad. sk.	Pinang (*Cantor*).	India Museum [P.].
l^3. ♂ ad. sk.	Selangore, July (*W. Davison*).	Hume Coll.
m^3–p^3. ♂ ♀ ad. sk.	Klang, Feb., July, Sept. (*W. Davison*).	Hume Coll.
q^3–t^3. ♂ ♀ ad. sk.	Johore, Aug., Sept. (*W. Davison*).	Hume Coll.
u^3. ♀ ad. sk.	Aberdeen, S. Andamans, Dec. (*W. Davison*).	Hume Coll.
v^3. ♀ ad. sk.	Dungleaf Creek, Jan. (*W. Davison*).	Hume Coll.
w^3. ♀ ad. sk.	Macpherson's Str., March (*W. Davison*).	Hume Coll.
x^3. ♂ ad. sk.	Stewart's Sound, April (*W. Davison*).	Hume Coll.
y^3, z^3. Ad. et pull. sk.	Port Blair, July (*R. J. Wimberley*).	Hume Coll.
a^4. ♂ ad. sk.	Port Mouat, Jan. (*W. Davison*).	Hume Coll.

b^4–l^4. ♂ ♀ ad. et imm. sk.	Mt. Harriet, Andamans, Dec. (*W. Davison*).	Hume Coll.
m^4. ♂ juv. sk.	Mt. Harriet, Dec. (*W. Davison*).	Salvin-Godman Coll.
n^4–s^4. ♂ ♀ ad. et imm. sk.	S. Andamans, Jan., Feb., May, Dec. (*R. G. W. R.*).	Tweeddale Coll.
t^4. Ad. sk.	[Nicobars.]	Salvin-Godman Coll.
u^4. ♂ ad. sk.	Sumatra, Sept. (*Carl Bock*).	Tweeddale Coll.
v^4. Ad. sk.	Sumatra.	India Museum [P.].
w^4. ♂ ad. sk.	Sumatra.	Wallace Coll.
x^4–a^5. Ad. sk.	Billiton.	Tweeddale Coll.
b^5. Ad. sk.	Java (*Wallace*).	Tweeddale Coll.
c^5. Ad. sk.	Java.	Salvin-Godman Coll.
d^5, e^5. ♂ ♀ ad. sk.	Lombock.	Wallace Coll.
f^5, g^5. ♂ ad. et ad. sk.	Lombock (*Wallace*).	Gould Coll.
h^5. ♂ ad. sk.	Lombock (*Wallace*).	Salvin-Godman Coll.
i^5, k^5. ♀ ad. sk.	Sarawak.	Wallace Coll.
l^5. ♀ ad. sk.	Sarawak (*Wallace*).	Tweeddale Coll.
m^5. ♀ ad. sk.	Sarawak (*Wallace*).	Seebohm Coll.
n^5. Ad. sk.	Sarawak (*A. H. Everett*).	Salvin-Godman Coll.
o^5. ♀ ad. sk.	Busan (*A. H. Everett*).	Tweeddale Coll.
p^5. Ad. sk.	Lawas River.	H. Veitch, Esq. [P.].
q^5. Ad. sk.	Sulu Is. (*Burbidge*).	H. Veitch, Esq. [P.].
r^5. Skeleton.	—— ?	—— ?
s^5. Skeleton.	Java.	Purchased.
	Var. *palawanensis*.	
t^5. Ad. sk.	Banguey.	A. H. Everett, Esq. [C.].
u^5, v^5. ♂ ♀ ad. sk.	P. Princesa, Palawan, Jan., Dec. (*A. H. Everett*).	Tweeddale Coll.
w^5. Ad. sk.	Palawan.	— Lempriere, Esq. [C.].
x^5. Ad. sk.	Palawan.	Prof. Steere [C.].
	Var. *chalybura*.	
y^5. Ad. sk.	Philippine Is.	Salvin-Godman Coll.
z^5, a^6, b^6. ♂ ♀ ad. sk.	Luzon, Jan., April (*A. B. Meyer*).	Tweeddale Coll.
c^6. Ad. sk.	Manilla.	Gould Coll.
d^6. Ad. sk.	Manilla (*Maitland-Heriot*).	Tweeddale Coll.
e^6. Juv. sk.	Manilla.	Seebohm Coll.
f^6. ♂ ad. sk.	Monte Alban, Feb. (*A. Everett*).	Salvin-Godman Coll.
g^6. ♂ ad. sk.	Negros, March (*A. B. Meyer*).	Tweeddale Coll.
h^6. Ad. sk.	Negros.	Prof. Steere [C.].
i^6, k^6. ♂ ♀ ad. sk.	Dumaguete, Aug. (*A. H. Everett*).	Tweeddale Coll.
l^6, m^6. ♂ ad. sk.	Cebu, March, April (*A. H. Everett*).	Tweeddale Coll.
n^6. ♂ ad. sk.	Cebu, April (*A. H. Everett*).	Salvin-Godman Coll.
o^6, p^6. ♂ ♀ ad. sk.	Amparo, Leyte, July (*A. H. Everett*).	Tweeddale Coll.
q^6. Ad. sk.	Dinagat (*A. H. Everett*).	Tweeddale Coll.
r^6, s^6. ♂ ad. sk.	Surigao, May (*A. H. Everett*).	Tweeddale Coll.

t. ♀ ad. sk.	Butuan, May (*A. H. Everett*).	Tweeddale Coll.
*u*⁶. ♀ ad. sk.	Zamboanga, March (*A. H. Everett*).	Tweeddale Coll.
*v*⁵, *w*⁶. ♂ ♀ ad. sk.	Basilan, May (*A. H. Everett*).	Tweeddale Coll.
*x*⁶. ♀ ad. sk.	Basilan, May (*A. H. Everett*).	Salvin-Godman Coll.

11. Carpophaga rhodinolæma.

Carpophaga rhodinolæma, *Sclat. P. Z. S.* 1877, p. 555 (Admiralty Islands); *id. P. Z. S.* 1878, pp. 218, 310 (eggs); *id. P. Z. S.* 1879, pp. 228, 310; *id. Voy. Challeng., Birds*, p. 31, pl. ix. (1881); *Salvad. Orn. Pap. e Mol.* iii. p. 85 (1882).

Adult male. Upper part of the head, neck, and underparts grey; frontal edge, chin, and periophthalmic feathers white; cheeks and throat pale vinous; under tail-coverts chestnut; the grey of the hind neck darker, and changing into the metallic golden-green colour, with some bluish tinge, of the back, rump, upper tail-coverts, and wing-coverts; quills black, tinged with blue and powdered with grey on the outer webs; quills underneath greyish brown; under wing-coverts grey; tail above deep steel-blue, underneath brown-black: bill black; feet red. Total length about 15·5 inches, wing 9·5, tail 5·5, bill 0·85, tarsus 1·1.

Female. Like the male.

Hab. Admiralty Islands.

a, *b*, *c*. ♂, *d*. ♀ ad. sk.	Admiralty Islands.	'Challenger' Exped. (Types of species.)

12. Carpophaga van-wycki.

Carpophaga van-wyckii, *Cass. Pr. Ac. Nat. Sc. Philad.* 1862, p. 320 (New Ireland) (*Ibis*, 1863, p. 229); *Pelz. Novara Reis., Vög.* p. 107 (1865); *Salvad. Ann. Mus. Civ. Gen.* ix. p. 200, n. 41 (1876); *Sclat. P. Z. S.* 1877, p. 109 (Duke of York Isl.), 1878, pp. 289, 671; *Salvad. Monogr. sottogen.* Globicera, p. 5 (1878); ? *Rams. Pr. Linn. Soc. N. S. W.* iii. p. 292 (1878) (South Cape, Deboyne Isl., Bramble Haven), iv. p. 101, n. 163 (1879); *Salvad. Ibis*, 1879, p. 326; *Sclat. P. Z. S.* 1879, pp. 218, 447, 451; *Layard, Ibis*, 1880, pp. 293, 301 (Duke of York Islands, New Britain, Palakura, Pigeon Island); *Finsch, Ibis*, 1881, p. 538 (Credner Isl.); *Salvad. Orn. Pap. e Mol.* iii. pp. 87, 558 (1882); *Finsch, Vög. d. Südsee*, p. 19 (1884) (Credner Isl.); *Sharpe in Gould's B. New Guin.* pt. xxv. pl. 8 (1888); *Lister, P. Z. S.* 1888, p. 521; *Tristr. Cat. Coll. B.* p. 43 (1889); *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 56 (*Agg. Orn. Pap. e Mol.* p. 182) (1892).

Globicera van-wyckii, *G. R. Gr. Hand-list*, ii. p. 229, n. 9184 (1870).

Carpophaga wickei, *Gieb. Thes. Orn.* i. p. 588 (1872).

? Carpophaga microcera, *Rams.* (*nec Bp.*?) *Pr. Linn. Soc. N. S. W.* i. p. 372 (1876).

Carpophaga rhodinolæma, *Finsch* (*nec Sclat.*), *P. Z. S.* 1879, p. 13 (Duke of York Isl.).

Adult male. Upper part of the head grey, becoming darker on the hind neck, and changing into the greyish metallic-green colour of the upper parts, brighter and purer on the upper tail-coverts; frontal edge, chin, and periophthalmic feathers white; cheeks and throat light vinous, changing into grey, more or less vinous, on the breast and abdomen; under tail-coverts chestnut; quills above blackish, with a dusty bluish tinge on the outer webs, underneath greyish; under wing-coverts grey; tail above dark steel-blue, more or less tinged with green, especially on the outer webs; tail below blackish brown: bill black; feet red. Total length 16 inches, wing 9·4, tail 6·2, bill 0·9, tarsus 1·15.

Female. Similar to the male.

Hab. New Ireland, Duke of York Island, and New Britain.

a. Ad. sk.	Port Moresby, S.E. New Guinea (?).	A. Goldie [C.].
b, *c*. ♀ ad. et ad. sk.	Duke of York Isl.	Rev. G. Brown [C.].
d. Ad. sk.	Duke of York Isl., Oct. (*Rev. G. Brown*).	Tweeddale Coll.
e–*h*. ♂ ad. et ad. sk.	Duke of York Isl. (*Rev. G. Brown*).	Salvin-Godman Coll
i. ♀ ad. sk.	Duke of York Isl., Oct. (*T. Kleinschmidt*).	Sharpe Coll.
k. ♂ ad. sk.	Credner Isl., New Britain, Oct.	T. Kleinschmidt [C.].

13. Carpophaga pistrinaria.

Carpophaga pistrinaria, *Bp. in litt.* (*Consp. Av.* ii. p. 36) (1854) (St. George, Solomon Islands, type examined); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 18 (1856) (St. Cristoval); *Wall. Ibis*, 1865, p. 386; *Sclat. P. Z. S.* 1869, pp. 119, 124; *Gieb. Thes. Orn.* i. p. 587 (1872); *Salvad. Ann. Mus. Civ. Gen.* ix. p. 201, n. 43 (1876); *Sclat. P. Z. S.* 1878, p. 672; *Salvad. Monogr. sottogen.* Globicera, p. 5 (1878); *id. Ibis*, 1879, p. 326; *Tristr. Ibis*, 1879, p. 443 (Makira); *Rams. Pr. Linn. Soc. N. S. W.* iv. p. 72 (1879) (Guadalcanar); *Salvad. Ibis*, 1880, p. 128; *id. Orn. Pap. e Mol.* iii. pp. 80, 558 (1882); *Tristr. Ibis*, 1882, p. 144; *id. Cat. Coll. B.* p. 42 (1889); *Salvad. Mem. R. Ac. Sc. Tor.* xlii. p. 56 (*Agg. Orn. Pap. e Mol.* p. 182) (1891); *Tristr. Ibis*, 1892, p. 298.

Ducula pistrinaria, *Bp. Consp. Av.* ii. p. 36 (1854); *id Compt. Rend.* xl. pp. 215, 217, n. 96 (1855); *id. Coup d'œil Ordr. Pig.* pp. 53, 55, n. 96 (1855); *id. Compt. Rend.* xli. p. 658 (1855); *Rchb. Tauben*, i. p. 115 (1862); *G. R. Gr. Hand-list*, ii. p. 230, n. 9198 (1870).

Carpophaga (Ducula) pistrinaria, *G. R. Gr. Cat. B. Trop. Isl.* p. 42 (1859).

Carpophaga pristinaria (*sic*), *Rams. Pr. Linn. Soc. N. S. W.* iv. p. 72 (1879), vii. p. 35 (1883).

Carpophaga van-wickii, *Rams.* (*nec Cass.*?) *Nature*, xx. p. 125 (1879) (Guadalcanar); *id. Pr. Linn. Soc. N. S. W.* iv. p. 101, n. 103 (part.) (1879).

Adult male. Upper part of the head and hind neck mealy grey, changing into mealy or dusty green on the back, rump, and wings: upper tail-coverts purer metallic green; frontal edge, chin, and periophthalmic feathers white; cheeks, throat, and breast light vinous; abdomen pale grey; under tail-coverts chestnut; quills blackish, with a mealy or dusty bluish tinge on the outer webs, underneath dark brown-grey; under wing-coverts grey; tail above dark steel-blue, with a green tinge on the edges of the outer webs; underneath blackish brown: "iris lake; margin of eyelids and base of upper mandible crimson" (*Macgillivray*); rest of the bill black: "feet cherry-red" (*G. E. Richards*). Total length about 16 inches, wing 10, tail 6, bill 0·9, tarsus 1·2.

Female. Similar to the male.

This species very much resembles *C. van-wyckі*, from which it differs in being somewhat more mealy above, and in having the pale vinous colour not confined to the cheeks and throat, but spreading down on the breast.

Hab. Solomon Islands.

a, b. ♂ ad. & ad. sk.	San Christoval (*J. Macgillivray*).	Voyage of H.M.S. 'Herald.'
c. Ad. sk.	San Christoval.	J. Brenchley [P.].
d. ♀ ad. sk.	San Christoval (*G. E. Richards*).	Salvin-Godman Coll.
e. Ad. sk.	Ugi.	Tweeddale Coll.

14. Carpophaga rosacea.

Columba rosacea, *Temm. Pl. Col.* 578 (livr. 98, 1835) (type examined); *Prév. & Knip, Pig.* ii. pl. 34 (1838–43); *Müll. Verhandl. Land- en Volkenk.* p. 159 (1839–44).

Carpophaga rosacea, *G. R. Gr. List of Gallinæ Brit. Mus.* p. 6 (1844); *id. Gen. B.* ii. p. 469, n. 15 (1844); *Cass. Pr. Ac. Nat. Sc. Philad.* 1854, p. 227; *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 17 (1856); *Wall. P. Z. S.* 1863, p. 486; *id. Ibis*, 1865, p. 386, n. 62; *Schleg. N. T. D.* iii. pp. 201, 315 (1865); *Finsch, Neu-Guin.* p. 177 (1865); ? *Blyth, Ibis*, 1870, p. 173 (Timor); *Gieb. Thes. Orn.* i. p. 588 (1872); *Schleg. Mus. P.-B.* Columbæ, p. 87 (1873); *Salvad. Ann. Mus. Civ. Gen.* ix. p. 200, n. 42 (1876); *Cab. & Rchnw. J. f. O.* 1876, p. 325; *Rosenb. Malay. Archip.* p. 371 (1879); *Salvad. Ann. Mus. Civ. Gen.* xiv. p. 660 (1879); *id. Orn. Pap. e Mol.* iii. p. 89 (1882); *Sclat. P. Z. S.* 1883, pp. 51, 195, 200 (Timorlaut); *Forbes, P. Z. S.* 1884, p. 433; *Tristr. Cat. Coll. B.* p. 42 (1889) (Timor); *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 56 (*Agg. Orn. Pap. e Mol.* p. 182) (1891).

Ducula rosacea, *Bp. Consp. Av.* ii. p. 36 (1854); *id. Compt. Rend.* xxxix. p. 1075 (1854), xl. p. 217, n. 93 (1855); *id. Coup d'œil Ordre Pig.* pp. 16, 55, n. 93 (1855); *Rchnb. Tauben*, i. p. 115, n. 286, t. 228. f. 1275 (1862); *G. R. Gr. Hand-list*, ii. p. 230, n. 9197 (1870); *Wald. Tr. Zool. Soc.* viii. p. 84 (1872); *Meyer, Ibis*, 1879, p. 136; *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 282 (1890).

Carpophaga cineracea, *Rosenb.* (*nec Temm.*) *Reis naar Zuidoostereil.* p. 81 (1867); *id. Malay. Archip.* pp. 371, 372 (1879).

Adult. Head pale vinous, whitish on the frontal edge; neck pale grey; back greyish bronze-green: longer upper tail-coverts brighter metallic green; breast and abdomen pale vinous, like the head; under tail-coverts chestnut; quills underneath dark grey; under wing-coverts grey; tail above dull metallic green, below greyish brown: "bill lead-colour, red at base above; iris and eyelids red, orbits bare, pale lead-colour (!); feet pink-red" (*Wallace*). Length 17·68–16·11 inches, wing 9·43–9·23, tail 6·48–6·09, bill 0·74–0·70, tarsus 1·06–1·02.

Female. Like the male.

Hab. Timor Group—Timor, Flores, Wetter, Kisser, Lettie; Tenimber Islands, Ké Islands, Halmahera, and Celebes.

a. Ad. sk.	Timor.	Leyden Museum [P.].
b. ♂ ad. sk.	E. Timor (*Wallace*).	Gould Coll.
c. Juv. sk.	E. Timor.	Wallace Coll.
d, e, f. ♀ ad. et ad. sk.	Timor.	Wallace Coll.
g. Ad. sk.	Timor (*Wallace*).	Salvin-Godman Coll.
h. Ad. sk.	Flores (*Wallace*).	Seebohm Coll.
i, k. ♂ ♀ ad. sk.	Tenimber Isl., Sept.	H. O. Forbes, Esq. [C.].
l, m. ♂ ♀ ad. sk.	Tenimber Isl., Sept. (*H. O. Forbes*).	Salvin-Godman Coll.
n. ♀ ad. sk.	Tenimber Isl., Sept. (*H. O. Forbes*).	Tweeddale Coll.
o. ♂ ad. sk.	Dammar Isl., Banda Sea, Nov.	P. W. Bassett-Smith, Esq. [C.].
p. Ad. sk.	Celebes.	Wallace Coll.
q. ♀ ad. sk.	Makassar.	Wallace Coll.
r. Ad. sk.	Makassar (*Wallace*).	Gould Coll.
s. Ad. sk.	[New Guinea] (*von Rosenberg*).	Tweeddale Coll.

15. Carpophaga perspicillata.

Columba perspicillata, *Temm. Pl. Col.* 246 (livr. 42, 1825) (type examined); *Steph. Gen. Zool.* xiv. 1, p. 286 (1826); *Desm. Dict. Sc. Nat.* xl. p. 311 (1826); *Wagl. Syst. Av.* Columba, sp. 13 (1827); ? *Less. Tr. d'Orn.* p. 469 (1831); *id. Compl. de Buff., Ois.* viii. p. 86 (1837); *id. op. cit.* 2nd ed. p. 293 (1838).

Carpophaga perspicillata, *G. R. Gr. Gen. B.* ii. p. 468, n. 14 (1844); *Blyth, Cat. B. Mus. A. S. B.* p. 232, n. 1403 (1849); *Bp. Consp.* ii. p. 33 (1854); *id. Compt. Rend.* xxxix. p. 1074 (1854), xl. p. 217, n. 84 (1855); *id. Coup d'œil Ordr. Pig.* pp. 14, 55, n. 84 (1855); *Cass. Pr. Ac. Nat. Sc. Philad.* 1854, p. 230; *Bp. Compt. Rend.* xliii. p. 835 (1856); *id. Icon. Pig.* pl. 45 (1857); *G. R. Gr. P. Z. S.* 1860, p. 360 (part.), 1861, p. 437; *Wall. Ibis*, 1861, p. 290; *Rchnb. Tauben*, i. p. 119, t. 231. ff. 1291–92 (1862); *Finsch, Neu-Guin.* p. 177 (1865); *Schleg. N. T. D.* iii. pp. 194, 344 (1865); *G. R. Gr. Hand-list*, ii. p. 228, n. 9197 (1870); *Gieb. Thes. Orn.* i. p. 587 (1872); *Schleg. Mus. P.-B.* Columbæ, p. 89 (1873); *Sousa, Mus.*

Nac. Lisb. Columbæ, p. 10 (1873); *Wald. Tr. Zool. Soc.* ix. p. 216 (1875); *Salvad. Ann. Mus. Civ. Gen.* vii. p. 789 (1875), viii. p. 382 (1876), ix. p. 201, n. 45 (1876); *Pelz. Verh. z.-b. Ges. Wien*, 1876, p. 719; *Rosenb. Malay. Archip.* p. 407 (1878–79); *Salvad. Orn. Pap. e Mol.* iii. p. 91 (1882); *Pleske, Bull. Acad. Pétersb.* xxix. p. 535 (1884) (Ternate); *Tristr. Cat. Coll. B.* p. 42 (1889); *Heine & Rchnw. Nomencl. Mus. Hein. Orn.* p. 281 (1890) (New Guinea!); *Salvad. Mem. R. Ac. Tor.* (2) xlii. p. 56 (*Agg. Orn. Pap. e Mol.* p. 182) (1891).

Carpophaga perspicillata, var., *Wall. P. Z. S.* 1863, p. 33.

Carpophaga temminckii, *Wall. Ibis*, 1865, p. 384, n. 54; *id. J. f. O.* 1866, p. 280, n. 54; *G. R. Gr. Hand-list*, ii. p. 228, n. 9173 (1870).

Adult. Head and neck dark slate-cinereous; frontal edge, chin, and ring round the eyes white; hind part and sides of the neck metallic green, like the back, rump, upper tail-coverts, and upper wing-coverts; some feathers of these parts have blue reflections; primaries slate-blue, secondaries metallic blue-green; quills underneath dark grey; under wing-coverts paler grey, like the breast, abdomen, and under tail-coverts; tail above dark steel-blue, underneath brown-black: bill bluish horn, red at base above; feet dull purple-red: "iris deep brown-olive" (*Wallace*). Total length 18 inches, wing 10·22–9·82, tail 7·07–6·68, bill 0·98–0·94, tarsus 1·29.

A specimen in the Museum of Turin, from unknown locality, has the hind neck and the upper parts much more golden than those from Halmahera, and most likely deserves to be specifically separated; its dimensions also are smaller.

Hab. Halmahera Group, Batchian, and Bouru.

a. ♂ ad. sk.	Batchian.	Wallace Coll.
	(One of the types of *C. temminckii*, Wall.)	
b. Ad. sk.	Batchian (*Wallace*).	Gould Coll.
c. Ad. sk.	Batchian.	Salvin-Godman Coll.
d. Ad. sk.	Bouru Isl.	Wallace Coll.
	(One of the types of *C. temminckii*, Wall.)	
e. ♂ ad. sk.	Bouru Isl. (*Wallace*).	Gould Coll.
f. Ad. sk.	Bouru Isl. (*Wallace*).	Seebohm Coll.
g. Ad. sk.	Bouru Isl. (*Wallace*).	Salvin-Godman Coll.
h. Ad. sk.	Bouru Isl.	Salvin-Godman Coll.
i. ♀ ad. sk.	Bouru Isl., Dec. (*H. O. Forbes*).	Salvin-Godman Coll.
k. ♀ ad. sk.	[Waigiou.]	Wallace Coll.

16. Carpophaga neglecta.

Carpophaga perspicillata, *G. R. Gr.* (*nec. Temm.*) *List Gallinæ B. M.* p. 6? (1844); *id. List B. Brit. Mus.* Columbæ, p. 18 (1856) (Amboina); *id. P. Z. S.* 1860, p. 360 (part.); *Wall. Ibis*, 1860, p. 199, 1865, p. 384, n. 53; *id. J. f. O.* 1866, p. 280.

Carpophaga neglecta, *Schleg. N. T. D.* iii. pp. 195, 344 (1865) (type examined); *Newt. Zool. Record*, 1865, p. 122 (1866); *G. R. Gr. Hand-list*, ii. p. 228, n. 9171 (1870); *Gieb. Thes. Orn.* i. p. 586 (1872); *Schleg. Mus. P.-B.* Columbæ, p. 90 (1873); *Wald. Tr.*

Zool. Soc. ix. p. 216 (1875); *Salvad. Ann. Mus. Civ. Gen.* vii. p. 789 (1875), ix. p. 201, n. 46 (1876); *Lenz, J. f. O.* 1877, p. 377; *Rosenb. Malay. Archip.* p. 371 (1878–79); *Salvad. Orn. Pap. e Mol.* iii. p. 93 (1882); *Blas. P. Z. S.* 1882, p. 709 (Ceram); *Meyer, Sitzb. u. Abh. Ges. Isis*, 1884, Abh. i. p. 51; *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 56 (*Agg. Orn. Pap. e Mol.* p. 182) (1891).

Adult male. Head and neck grey, slightly darker on the hind neck, paler on the breast, abdomen, and under tail-coverts; throat and abdomen very slightly tinged with reddish or pale vinous; frontal edge and a ring round the eyes white; grey colour of the hind neck not sharply defined from the metallic-green colour of the back, rump, upper tail-coverts, and upper wing-coverts; some feathers of these parts have blue reflections; quills, except the tertials, greyish blue; tertials metallic green; quills underneath grey; under wing-coverts pale grey; tail above slate-blue, below dark grey: "bill lead-colour, red at base above; iris dark; feet purple" (*Wallace*). Length 18·86 inches, wing 10·60, bill 1·06–1·02, tarsus 1·33.

Hab. Amboyna Group—Ceram, Amboyna, and Boano.

a. ♀ ad. sk.	Amboyna (*Wallace*).	Gould Coll.
b. Ad. st.	Amboyna.	Leyden Museum [P.].
c, *d*. ♂ ad. et ♀ juv. sk.	Wai, Amboyna, June (*H. O. Forbes*).	Salvin-Godman Coll.
e. Ad. sk.	Ceram.	Wallace Coll.
f. Ad. sk.	Ceram (*Wallace*).	Gould Coll.
g. Ad. sk.	E. Ceram (*Wallace*).	Gould Coll.
h. Ad. sk.	[Waigiou] (*Wallace*).	Gould Coll.

17. Carpophaga pickeringi.

Carpophaga ænea, *Peale* (*nec Linn.*) *U.S. Expl. Exped., Zool.* p. 198 (1848) (Mangsi); *Hartl. Archiv f. Naturg.* 1852, p. 115 (part.).

Carpophaga pickeringii, *Cass. Pr. Ac. Nat. Sc. Philad.* vii. p. 228 (Mangsi) (1854); *Bp. Compt. Rend.* xliii. p. 835 (1856); *Cass. Un. St. Expl. Exp.* 2nd ed. p. 267, pl. xxvii. (1858); *Rchnb. Tauben*, ii. p. 184, *Norit. Suppl.* t. vi. f. 72 (1862); *Wald. Tr. Zool. Soc.* ix. p. 215 (1875); *Sharpe, Tr. Linn. Soc., Zool.* i. p. 353 (1876); *id. P. Z. S.* 1879, p. 316; *Tweedd. Orn. Works*, p. 379 (1881); *Guillem. P. Z. S.* 1885, pp. 248, 270 (Sulu Isl.), 418, 420 (Cagayan Sulu); *Everett, Ibis*, 1888, p. 282; *id. Journ. Str. Br. R. As. Soc.* 1889, p. 195; *Blas. J. f. O.* 1890, p. 138.

Carpophaga chalybura, part., *G. R. Gr. Hand-list*, ii. p. 228, n. 9196 (1870).

Carpophaga ænea, part., *Gieb. Thes. Orn.* i. p. 583 (1872).

Carpophaga everetti, *Grant, Ann. & Mag. N. H.* (6) ii. p. 351 (1888) (Mantanani Isl.); *id. Ibis*, 1889, p. 582.

Adult male. Head and underparts greyish vinous, changing into pure grey on the lower hind neck and upper mantle; frontal edge, a ring of feathers round the eyes, and chin whitish; back, rump, and wings greyish green (in some specimens with a slight brown

tinge), with a metallic lustre in some lights; longer upper tail-coverts and tail above metallic bottle-green; primaries mealy green, especially on the outer webs; under surface of the wings and of the tail grey; under tail-coverts grey, with a reddish tinge: "iris crimson, bill light lead-grey; feet dull crimson" (*Everett*). Total length about 16 inches, wing 9·5, tail 6·8, bill 0·78, tarsus 1·1.

Female. Similar to the male.

Hab. Mangsi, Mergalun, Mantanani, and Sulu Islands, round the northern and N.E. coast of Borneo.

a. ♂ ad. sk.	Sulu Islands (*H. Guillemard*).	Hon. W. Rothschild [P.].
b. ♀ ad. sk.	Mantanani.	A. H. Everett, Esq. [C.].

18. Carpophaga cineracea.

Columba cineracea, *Temm. Pl. Col.* 563 (livr. 95, 1835); *Less. Compl. de Buff., Ois.* viii. p. 41 (1837); *id. op. cit.* 2nd ed. p. 280 (1838).
Carpophaga cineracea, *G. R. Gr. Gen. B.* ii. p. 469, n. 18 (1844); *Rchnb. Syn. Av.* Columbariæ, f. 1272 (1847); *Wall. P. Z. S.* 1863, p. 486; *id. Ibis*, 1865, pp. 385, 398; *id. J. f. O.* 1866, p. 281; *Gieb. Thes. Orn.* i. p. 584 (1872); *Schleg. Mus. P.-B.* Columbæ, p. 91 (1873); *Tristr. Cat. Coll. B.* p. 42 (1889).
Ducula cineracea, *Bp. Consp. Av.* ii. p. 36 (1854); *id. Compt. Rend.* xxxix. p. 1075 (1854), xl. p. 217, n. 92 (1855); *id. Coup d'œil Ordr. Pig.* pp. 16, 55, n. 92 (1855); *Rchnb. Tauben*, i. p. 115, t. 228. f. 1272 (1862); *G. R. Gr. Hand-list*, ii. p. 230, n. 9195 (1870).

Adult male. Head and hind neck ashy; back and rump darker; wings, upper tail-coverts, and upper surface of the tail dark grey with an olive lustre; middle of the throat, fore neck, and breast vinous, changing into pale ochreous on the abdomen and under tail-coverts; the longest of the latter with a brownish tinge along the middle; primaries brown-grey, with a narrow ochreous edge on the outer web; under wing-coverts grey; under surface of the quills brown-grey with an ochreous lustre; under surface of the tail grey: "iris dark; bill black; feet purplish black" (*Wallace*). Total length about 16·5 inches, wing 8·5, tail 7, bill 0·85, tarsus 1·05.

Female. Similar to the male.

Young. Has the primary-coverts and the quills more broadly edged with rufous, and the tail-feathers tipped with the same colour.

Hab. Timor.

a. Ad. st.	Timor.	Leyden Museum.
b, c. ♀ ad. et juv.	E. Timor.	Wallace Coll.
d. Ad. sk.	Timor (*A. R. Wallace*).	Salvin-Godman Coll.

19. Carpophaga latrans.

Carpophaga latrans, *Peale, U.S. Expl. Exped.* p. 200, pl. 55 (1848); *Hartl. Wiegm. Arch. f. Naturg.* 1852, p. 116; *id. J. f. O.*

1854, p. 169; *Cass. Pr. Ac. Nat. Sc. Philad.* 1854, p. 229; *Bp. Consp. Av.* ii. p. 33 (1854); *id. Compt. Rend.* xxxix. p. 1074 (1854), xl. p. 217, n. 86 (1855); *id. Coup d'œil Ordr. Pig.* pp. 15, 55, n. 86 (1855); *Cass. Un. St. Expl. Exp.* 2nd ed. p. 261, pl. xxvi. (1858); *G. R. Gr. Cat. B. Trop. Isl.* p. 42 (1859); *Rchnb. Tauben*, i. p. 120 (1862), ii. p. 184, *Novit. Suppl.* t. vi. ff. 70, 71 (ex Cassin) (1862); *Hartl. Ibis*, 1864, p. 232; *Finsch & Hartl. Faun. Centralpolyn.* pp. 140, 279 (1867); *Gieb. Thes. Orn.* i. p. 585 (1872); *Schleg. Mus. P.-B.* Columbæ, p. 91 (1873); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 10 (1873); *E. L. Layard, P. Z. S.* 1875, pp. 30, 430, 438; *Layard, Ibis*, 1876, pp. 138, 149, 392; *Cab. & Rchnw. J. f. O.* 1876, p. 325; *Finsch, P. Z. S.* 1877, p. 737; *Garrod, P. Z. S.* 1878, p. 102 (gizzard); *Nehrk. J. f. O.* 1879, p. 407 (egg); *Forbes, Ibis*, 1881, p. 21; *Finsch, Voy. Challeng., Birds*, pp. 51, 52, pl. xvii. (1881); *Garrod, Voy. Challeng., Birds*, p. 152 (gizzard) (1881); *Gadow, P. Z. S.* 1882, p. 329; *Sclat. List Vert. An.* 8th ed. p. 443 (1883); *North, Pr. Linn. Soc. N. S. W.* (2) ii. p. 444 (1887); *Tristr. Cat. Coll. B.* p. 42 (1889); *Rchnw. J. f. O.* 1891, p. 122; *Wiglesw. Aves Polynes.* p. 53, n. 269 (1891).

Carpophaga ochropygia, *Bp. Consp. Av.* ii. p. 33 (1854) (Balaou); *id. Compt. Rend.* xxxix. p. 1074 (1854), xl. p. 217, n. 85 (1855); *id. Coup d'œil Ordr. Pig.* pp. 15, 55, n. 85 (1855); *G. R. Gr. Cat. B. Trop. Isl.* p. 52 (1859); *Rchnb. Tauben*, i. p. 119 (1862).

Ducula latrans, *G. R. Gr. Hand-list*, ii. p. 230, n. 9199 (1870).

Adult male. Head and neck ashy; occiput, throat, fore neck, and breast vinous grey; lower abdomen, vent, and under tail-coverts light reddish fulvous or reddish buff: back and rump dark brown; upper tail-coverts, upper wing-coverts, and scapulars glossy dark greyish brown; primaries greyish black; secondaries brownish black, with a greyish tinge; all the quills with the base of the inner webs rufous, most conspicuous seen from below; under wing-coverts chestnut-rufous; tail above reddish brown or liver-brown, below much lighter: "bill black; feet red-brown; iris blood-red" (*Gräffe*), or "purple-red; eyelids carmine-red" (*Peale*). Length about 16 inches, wing 10, tail 7·25, bill 1·1, tarsus 1·15.

Female. Similar to the male.

Hab. Fiji Islands.

a. ♂ ad. sk.	Savu Savu Bay, Vanua Levu, Feb. (*Dr. Smith*).	Salvin-Godman Coll.
b, c. ♂ ♀ ad. sk.	Ovalau, Nov., Dec. (*E. L. Layard*).	Tweeddale Coll.
d. ♂ ad. sk.	Ovalau, Oct. (*E. L. Layard*).	Salvin-Godman Coll.
e. Ad. sk.	Levuka.	J. Brenchley, Esq. [P.]
f. ♀ ad. sk.	Levuka, Sept. (*E. L. Layard*).	Tweeddale Coll.
g, h. ♂ ad. et ad. sk.	Reva, Viti Levu, March (*E. L. Layard*).	Tweeddale Coll.
i, k. ♀ ad. sk.	Kandavu.	'Challenger' Exp.
l. ♂ ad. sk.	Kandavu, Aug. (*E. L. Layard*).	Tweeddale Coll.
m. Ad. st.	Island of Matuku (*F. M. Rayner*).	Voyage of H.M.S. 'Herald.'

20. Carpophaga zoeæ.

Columba zoeæ, *Less. Voy. Cog., Zool.* i. p. 205, pl. 39 (1826) (type examined); *Desm. Dict. Sc. Nat.* xl. p. 314 (1826); *Less. Man. d'Orn.* p. 164 (1828); *Wagl. Isis*, 1829, p. 740; *Less. Compl. de Buff., Ois.* viii. p. 87 (1837); *id. op. cit.* 2nd ed. p. 293 (1838); *Prév. & Knip, Pig.* pl. 3 (1838–43).

Columba zoë, *Less. Tr. d'Orn.* p. 469 (1831).

Carpophaga zoeæ, *G. R. Gr. Gen. B.* ii. p. 469, n. 22 (1844); *Wall. Ann. & Mag. N. H.* (2) xx. p. 476 (1857); *Sclat. Journ. Pr. Linn. Soc.* ii. p. 168, n. 145 (1858); *G. R. Gr. P. Z. S.* 1858, pp. 186, 196; *id. Cat. B. New Guin.* pp. 48, 61 (1859); *id. P. Z. S.* 1859, p. 159, 1861, p. 437; *Rosenb. Reis naar Zuid-oostereil.* p. 49 (1865); *Gieb. Thes. Orn.* i. p. 588 (1872); *Schleg. Mus. P.-B.* Columbæ, p. 91 (1873); *Salvad. & D'Alb. Ann. Mus. Civ. Gen.* vii. p. 833 (1875), ix. p. 201, n. 47 (1876), x. p. 159 (1877); *Sharpe, Journ. Linn. Soc., Zool.* xiii. p. 502 (1877); *D'Alb. Sydn. Mail*, 1877, p. 248; *id. Ann. Mus. Civ. Gen.* x. pp. 18, 20 (1877); *Salvad. P. Z. S.* 1878, p. 99; *Rams. Pr. Linn. Soc. N. S. W.* iii. p. 147, n. 291 (1878), iv. p. 101, n. 160 (1879); *Rosenb. Malay. Archip.* pp. 371, 561 (1879); *D'Alb. & Salvad. Ann. Mus. Civ. Gen.* xiv. p. 120 (1879); *D'Alb. Nuova Guin.* pp. 310, 582, 584, 588 (1880); *Salvad. Voy. Challeng., Birds*, p. 83 (1881); *id. Orn. Pap. e Mol.* iii. p. 94 (1882); *Sharpe, Journ. Linn. Soc., Zool.* xvi. p. 446 (1882); *Guillem. P. Z. S.* 1885, p. 659; *Finsch & Meyer, Zeitschr. f. ges. Orn.* 1886, p. 27; *Meyer, ibid.* p. 37 (Kafu); *Tristr. Cat. Coll. B.* p. 43 (1889); *Salvad. Ann. Mus. Civ. Gen.* (2) x. p. 825 (1891); *id. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 56 (*Agg. Orn. Pap. e Mol.* p. 182) (1891).

Zonœnas zoea, *Rchnb. Av. Syst. Nat.* p. xxvi (1852); *Bp. Consp. Av.* ii. p. 37 (1854); *id. Compt. Rend.* xxxix. p. 1076 (1854), xl. p. 217, n. 103 (1855); *id. Coup d'œil Ordr. Pig.* pp. 17, 55, n. 103 (1855); *Rosenb. N. T. N. I.* xxv. p. 249, n. 231 (1863); *id. J. f. O.* 1864, p. 132, n. 231; *G. R. Gr. Hand-list* ii. p. 230, n. 9205 (1870).

Hemiphaga zoeæ, *Rchnb. Tauben*, i. p. 114, t. 232. f. 1295 (1862), ii. p. 182 (1862).

Carpophaga zoloæ, *Finsch, Neu-Guin.* p. 178 (1865).

Carpophaga zoea, *Wall. Ibis*, 1865, p. 387, n. 72; *id. J. f. O.* 1866, p. 281, n. 72.

Zonœnas zoeæ, *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 282 (1890).

Adult male. Head ashy, lighter on the throat; neck and upper breast vinous; upper back, scapulars, and upper wing-coverts chestnut with some green lustre; between the grey colour of the neck and the chestnut colour of the back an obscure metallic-green band; lower back, rump, and upper tail-coverts metallic green; on the breast a narrow transverse black band, between the vinous colour of the upper breast and the grey colour of the lower breast and abdomen; tibial feathers, flanks, and vent chestnut, with whitish spots at the tip; under tail-coverts also chestnut, but edged, especially at the tip, with whitish; quills coppery green, the inner secondaries bright metallic green; quills below brown; under wing-coverts brown with green lustre; tail above metallic green,

below chestnut: "bill black; orbits pale reddish; iris white; feet purple-red." Length 16·50–15·72 inches, wing 8·77–8·50, tail 5·50–5·10, bill 1·02–0·98, tarsus 1·10–1·02.

Female. Like the male.

Hab. Papuan Islands—New Guinea, Jobi, Salawatti, and Aru Islands.

a. Ad. sk.	Dorey (*Wallace*).	Gould Coll.
b, c, d. ♂ ♀ ad. sk.	Aru Is.	Wallace Coll.
e. Ad. sk.	Aru Is.	Salvin-Godman Coll.
f. ♂ ad. sk.	Aru Is.	'Challenger' Exp.
g. Ad. sk.	Fly River (*Broadbent*).	Salvin-Godman Coll.
h. Ad. sk.	Fly River.	Gould Coll.
i. Ad. sk.	Near Port Moresby(*A. Goldie*).	Salvin-Godman Coll.
k. Ad. sk.	Port Moresby.	J. Broadbent, Esq. [C.].
l. Ad. sk.	Astrolabe Mts. (*A. Goldie*).	Tweeddale Coll.
m. Ad. sk.	S.E. New Guinea (*A. Goldie*).	Salvin-Godman Coll.*

β. PTILOCOLPA.

Type.

Ptilocolpa, *Bp. Consp. Av.* ii. p. 34 (1854); *id. Compt. Rend.* xxxix. p. 1074 (1854)..... C. griseipectus.

Range. Philippine Islands.

First primary much scooped on the inner web; inner primaries broad and obliquely cut at the tip as in *Ducula*; in colouring intermediate between *Carpophaga* and *Zonœnas*.

a. Crop-region ashy grey, edged above with whitish; breast and abdomen chestnut ..... *griseipectus*, p. 205.
b. Crop-region coppery, overlaid with grey; breast and abdomen dull greyish chestnut ..... *carola*, p. 206.

21. Carpophaga griseipectus.

Carpophaga pectoralis, *G. R. Gr. List B. Brit. Mus.* iii. *Gallinæ*, p. 7 (ad., Philippines) (1844) (descr. nulla) (*nec* Columba pectoralis, *Wagl. Isis*, 1829, p. 740); *Hartl. J. f. O.* 1854, B. xlv. 1855, p. 98 (descr. princeps).

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* Dr. Meyer has separated the following subspecies:—

Carpophaga zoeæ orientalis, *Meyer, Abh. u. Ber. kgl. Zool. Anthrop. Mus. Dresd.* n. 2–4, p. 13 (1891) (Kaiser Wilhelmaland).

Similar to *C. zoeæ*, from which it differs in the following points: the chin and throat pure white; the grey feathers lighter; the pectoral band not pure black, but each feather with metallic-green bands; also on the mantle between the brown mantle and the vinous-grey neck there is a metallic-green band.

Hab. Kaiser Wilhelm's Land, N.E. New Guinea.

I doubt this form being truly distinct from *C. zoeæ*, as the specimens from Western New Guinea also show more or less the metallic-green band on the back.

Carpophaga griseopectus, *G. R. Gr. Mus. Brit.* 1854 (*fide Bp. Consp. Av.* ii. p. 34, 1854); *id. List B. Brit. Mus.* Columbæ, p. 22 (1856); *Wall. Ibis*, 1865, pp. 385, 398; *id. J. f. O.* 1866, p. 281; *Gieb. Thes. Orn.* i. p. 585 (1872); *Schleg. Mus. P.-B.* Columbæ, p. 88 (1873); *Tristr. Cat. Coll. B.* p. 42 (1889).

Ptilocolpa griseipectus, *Bp. Consp. Av.* ii. p. 34, n. 2 (1854); *id. Compt. Rend.* xxxix. p. 1075 (1854), xl. p. 217, n. 88 (1855); *id. Coup d'œil Ordr. Pig.* pp. 15, 55, n. 88 (1855); *id. Icon. Fig.* pl. 51 (1857); *G. R. Gr. Hand-list*, ii. p. 231, n. 9226 (1870); *Wald. Tr. Zool. Soc.* ix. pp. 216, 251 (part.) (1875); *Sharpe, Tr. Linn. Soc.*, 2nd ser. *Zool.* i. p. 353 (1876); *Tweedd. P. Z. S.* 1878, pp. 937, 952 (Zamboanga); *id. Orn. Works*, pp. 380, 412 (part.), 628, 643 (1881); *Wardl. Rams. Tweedd. Orn. Works*, p. 659 (part.) (1881); *Kutter, J. f. O.* 1883, p. 315; *Wardl. Rams. Ibis*, 1886, p. 160 (Manilla); *Steere, List Philipp. B.* p. 24 (1890); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 283 (1890); *Hartert, J. f. O.* 1891, p. 301.

Ptilocalpa griseipectus, *Rchnb. Tauben*, i. p. 91 (1862), ii. p. 176, *Novit. Suppl.* t. iii. ff. 30, 31 (1862).

Carpophaga (Ptilocolpa) griseipectus. *Mart. J. f. O.* 1866, p. 24.

Carpophaga, sp., *Tweedd. P. Z. S.* 1878, p. 937.

Adult. Head and neck grey, paler, almost white, in front of the latter; back and smaller upper wing-coverts grey, tipped with blackish spots, which have a green and coppery lustre; the grey colour of the back blends into the green colour of the rump and basal upper tail-coverts, these feathers have coppery edges; longer upper tail-coverts metallic green; crop-region pure grey; lower breast, abdomen, and under tail-coverts chestnut; tibial feathers and those of the vent fulvous white with chestnut tips; sides grey with coppery lustre; greater upper wing-coverts metallic greyish green with coppery lustre, like the quills, which are brighter coloured; quills underneath brown; under wing-coverts greyish metallic green; tail above shining blue-green, below brown, but the outer feathers lighter: "feet and bill red, the latter apparently with yellow tip" (*Hartlaub*). Length about 14 inches, wing 8·75, tail 5·2, bill 0·7, tarsus 0·9.

Hab. Phillippine Islands—Luzon, Mindoro, and Mindanao.

a, b. Ad. sk. et st.	Philippine Is.	Cuming Coll. (Types of species.)
c. Ad. sk.	Manilla.	Gould Coll.
d. Ad. sk.	Manilla (*Maitland-Heriot*).	Tweeddale Coll.

22. Carpophaga carola.

Carpophaga carola, *Bp. in litt.*; *id. Consp. Av.* ii. p. 34 (1854); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 22 (1856); *Wall. Ibis*, 1865, pp. 385, 398; *id. J. f. O.* 1866, p. 281.

Ptilocolpa carola, *Bp. Consp. Av.* ii. p. 34, n. 1 (1854); *id. Compt. Rend.* xxxix. p. 1075 (juv.) (1854), xl. p. 217, n. 87 (1855); *id. Coup d'œil Ordre Pig.* pp. 15, 55, n. 87 (1855); *id. Compt. Rend.* xli. p. 658 (1855), xliii. p. 835 (1856); *G. R. Gr. Hand-list*, ii.

p. 231, n. 9227 (1870); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 10 (1873).
Ptilocalpa carola, *Rchnb. Tauben*, i. p. 91 (1862).
Carpophaga (Ptilocolpa) carola, *Mart. J. f. O.* 1866, p. 24.
Ptilocolpa griseipectus, *Wald. Tr. Zool. Soc.* ix. pp. 216, 251 (part.) (1875); *Tweedd. Orn. Works*, pp. 380, 412 (part.) (1881); *Wardl. Rams. Tweedd. Orn. Works*, p. 659 (part.) (1881).

Adult. Head and neck grey; throat whitish; the grey of the hind neck shading into the coppery colour of the rest of the upper parts, which besides show a slight tinge of grey, or have a mealy appearance; some feathers are bluish green at the tip; the rump greener; longer upper tail-coverts metallic green, more or less bluish; crop-region washed with grey, changing into chestnut, more or less greyish, on the breast and abdomen; sides greenish grey, with some coppery lustre; vent and tibial feathers white; under tail-coverts cinnamon, the basal ones whitish; quills blackish, metallic green on the outer webs; the tertials coppery; under wing-coverts grey, with coppery green lustre; quills underneath brownish grey; tail above metallic green, more or less tinged with blue, underneath blackish, the outer feathers lighter, greyish: bill (in dry skin) yellowish with red base; feet probably carmine. Total length about 13·5 inches, wing 8·4, tail 5·5, bill 0·68, tarsus 0·85.

Young. Head and neck duller grey; the back and the wings less coppery and more greenish; the crop-region not coppery, but greenish, and the breast and abdomen paler reddish chestnut.

Hab. Manilla.

The bird described above has been considered by some ornithologists to be the young of *C. griseipectus*, but as three of the specimens mentioned below do not show any signs of immaturity, I cannot agree to their being young birds; besides the supposed young bird has the crop-region of a fine coppery green, overlaid with grey, and this feature, together with the more coppery colour of the upper parts, makes me believe that it belongs to a distinct species, already named *C. carola* by Bonaparte; anyhow, the identity of *C. carola* with *C. griseipectus*, in my opinion, has still to be proved.

a. Imm. st.	Phillippine Is.	Cuming Coll.
b, c, d. Ad. et juv. sk.	Manilla (*Maitland-Heriot*).	Tweeddale Coll.

γ. ZONOPHAPS.

	Type.
Zonophaps, *Salvad. MS.*	C. forsteni.

Range. Philippines, Celebes, Halmahera, and Papuan Islands.

Upper parts metallic golden green, more or less coppery or purple; light band across the tail, either about the middle or at the tip; in more typical species first primary much scooped about the middle of the inner web.

Key to the Species.

a. Grey tail-band about the middle.
  a'. Neck and crop-region golden green like the upper parts; the green colour sharply defined from the whitish breast and abdomen; first primary much scooped about the middle of the inner web.
    a''. Larger: throat white; breast and abdomen nearly pure white ..... *forsteni*, p. 208.
    b''. Smaller: throat rufous-chestnut; breast vinous white ..... *poliocephala*, p. 209.
  b'. Head and neck grey like the breast; lower hind neck deep blue and coppery red; outer three primaries much broadened about the middle of the inner webs..... *radiata*, p. 210.
b. Grey tail-band subapical, a green one at the tip. *finschi*, p. 211.
c. Grey tail-band apical.
  c'. Head entirely vinous.
    c''. Tail above deep steel-blue ..... *basilica*, p. 211.
    d''. Base of tail above dull purple..... *rufiventris*, p. 212.
  d'. Head above and on the sides ashy grey, like the hind neck ..... *chalconota*, p. 213.

23. Carpophaga forsteni.

Columba forsteri (*errore pro* forsteni), *Temm.* (*nec Wagl.*) *MS.*; *Knip & Prév. Pig.* ii. pl. 47 (1838–43).

Carpophaga forsteri, *G. R. Gr.* (*nec Wagl.*) *Gen. B.* ii. p. 469, n. 17 (1844); *Cass. Pr. Ac. Nat. Sc. Philad.* 1854, p. 231 (Celebes) (syn. emend.); *Wall. J. f. O.* 1866, p. 281.

Carpophaga albigularis, *G. R. Gr.* (ubi?) fide *Bp. Compt. Rend.* xxxix. p. 1077 (1854).

Hemiphaga forsteni, *Bp. Consp. Av.* ii. p. 39 (1854); *id. Compt. Rend.* xxxix. p. 1077 (1854), xl. p. 217, n. 108 (1855), xli. p. 658 (1855); *id. Coup d'œil Ordre Pig.* pp. 17, 55, n. 108 (1855); *G. R. Gr. Hand-list*, ii. p. 231, n. 9224 (1870); *Wald. Tr. Zool. Soc.* viii. p. 84 (1872); *Salvad. Ann. Mus. Civ. Gen.* vii. p. 672 (1877); *Lenz, J. f. O.* 1877, p. 379; *Meyer, Ibis*, 1879, pp. 58, 137; *Tweedd. Orn. Works*, p. 184 (1881); *Blas. J. f. O.* 1883, p. 139; *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 283 (1890).

Carpophaga forsteni, *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 22 (1856); *Wall. Ibis*, 1860, p. 141, 1865, pp. 387, 398; *Finsch, Neu-Guin.* p. 178 (1865); *Gieb. Thes. Orn.* i. p. 584 (1872); *Schleg. Mus. P.-B.* Columbæ, p. 93 (1873); *Rosenb. Malay. Archip.* p. 275 (1878); *Tristr. Cat. Coll. B.* p. 42 (1889).

Hemiphaga forsteri, *Bp. Compt. Rend.* xliii. p. 836 (1856).

Zonœnas forsteni, *Rchnb. Tauben*, i. p. 113 (1862), ii. p. 204, t. v. f. 61 (1862).

Zonœnas forsteri, *Rchnb. Tauben*, ii. p. 182 (1862).

Adult male. Head grey, almost white on the forehead, and washed with green on the hind part; throat white; neck, breast, and upper parts splendid golden green, with a bronze tinge on the hind neck; interscapular region tinged with mealy brown chestnut; breast and

abdomen white; sides of the breast green; flanks grey; under tail-coverts chestnut; first two primaries black, the remainder also black, but with the outer webs and tips metallic green; under wing-coverts green, under surface of quills blackish brown; tail metallic green above, blackish below, with a broad grey band across the middle part: "bill black; orbits and feet deep red; iris orange-yellow" (*Wallace*). Total length about 19 inches, wing 9·5, tail 7·8, bill 0·95, tarsus 1·25.

Female. Similar to male.

Hab. North Celebes.

a. Ad. st.	Celebes.	Leyden Museum [P.].
b. c. ♂ ♀ ad. sk.	Tondano, N. Celebes.	Wallace Coll.
d. Ad. sk.	Celebes (*Wallace*).	Gould Coll.
e. Ad. sk.	Celebes.	Tweeddale Coll.
f. Ad. sk.	Celebes.	Salvin-Godman Coll.
g. Skel.	Menado.	Dr. A. B. Meyer [C.].

24. Carpophaga poliocephala.

Carpophaga poliocephala, *G. R. Gr. List B. Brit. Mus.* iii. *Gallinæ*, p. 6 (Philippines) (1844) (descr. nulla); *G. R. Gr. & Mitch. Gen. B.* ii. p. 469, n. 30, pl. 119 (1844); *Rchnb. Syn. Av.* Columbariæ, f. 1298 (1847); *Hartl. J. f. O.* 1854, B. lxv. 1855, p. 97 (descr. princeps); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 22 (1856); *Wall. Ibis*, 1865, pp. 387, 398; *id. J. f. O.* 1866, p. 281; *Gieb. Thes. Orn.* i. p. 587 (1872); *Schleg. Mus. P.-B.* Columbæ, p. 92 (1873); *Tristr. Cat. Coll. B.* p. 42 (1889); *Hein. & Rchnb. Nomencl. Mus. Hein. Orn.* p. 283 (1890).

Zonœnas poliocephala, *Rchnb. Av. Syst. Nat.* p. xxvi (1852); *id. Tauben*, i. p. 112, t. 233. f. 1298 (1862).

Hemiphaga poliocephala, *Bp. Consp. Av.* ii. p. 39 (1854); *id. Compt. Rend.* xxxix. p. 1077 (1854), xl. p. 217, n. 105 (1855); *id. Coup d'œil Ordr. Pig.* pp. 17, 55, n. 105 (1855); *id. Compt. Rend.* xli. p. 658 (1855), xliii. p. 836 (1856); *G. R. Gr. Hand-list*, ii. p. 231, n. 9223 (1870); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 11 (1873); *Wald. Tr. Zool. Soc.* ix. pp. 217, 253 (1875); *Sharpe, Tr. Linn. Soc.* (2), *Zool.* i. pp. 347, 353 (1876) (Negros); *Tweedd. P. Z. S.* 1878, pp. 113 (Dinagat), 952 (Mindanao); *id. Orn. Works*, pp. 381, 412, 573, 643 (1881); *Wardl. Rams. Tweedd. Orn. Works*, p. 659 (1881); *Steere, List Philipp. B.* p. 24 (Mindanao, Basilan, Masbate) (1890).

Carpophaga forsterii, part., *Cass. Pr. Ac. Nat. Sc. Philad.* 1854, p. 231.

Carpophaga (Hemiphaga) poliocephala, *Mart. J. f. O.* 1866, p. 24.

Adult male. Upper parts, with wings, neck, and breast, golden green; head grey, lighter on the forehead and cheeks, tinged with vinous on the hind part and nape; throat rufous chestnut; breast white, washed with vinous; lower abdomen, flanks, and under tail-coverts cinnamon; primaries blackish brown, with the outer webs and tips dark metallic green; under wing-coverts bronze-green, under surface of quills blackish brown; tail metallic green above, brown-black underneath, with a broad grey band towards the apical third: "bill black; orbital skin crimson; iris Indian yellow, passing into red on

outer ring; feet carmine" (*Everett*). Total length about 13·5 inches, wing 8·8, tail 6, bill 0·85, tarsus 1·1.

Female. Similar to the male.

Hab. Southern Philippine Islands—Negros, Dinagat, Mindanao, Basilan.

a. Ad. st.	Philippine Is.	Cuming Coll. (Type of species.)
b. ♀ ad. sk.	Dinagat, June (*A. H. Everett*).	Tweeddale Coll.
c–g. ♂ ♀ ad. sk.	Zamboanga, March, April (*A. H. Everett*).	Tweeddale Coll.

25. Carpophaga radiata.

Columba radiata, *Quoy & Gaim. Voy. Astrol., Zool.* i. p. 244, pl. 26 (Menado) (1830); *Less. Compl. de Buff., Ois.* viii. p. 84 (1837); *id. op. cit.* 2nd ed. p. 292 (1838); *Knip & Prév. Pig.* ii. pl. 29 (1838–43).

Carpophaga radiata, *G. R. Gr. Gen. B.* ii. p. 469, n. 23 (1844); *Rchnb. Syn. Av.* Columbariæ, f. 1287 (1847); *Finsch, Neu-Guin.* p. 178 (1865); *Wall. Ibis*, 1865, p. 387; *id. J. f. O.* 1866, p. 281; *Gieb. Thes. Orn.* i. p. 588 (1872); *Schleg. Mus. P.-B.* Columbæ, p. 53 (1873); *Brüggem. Abh. Naturw. Ver. Brem.* v. p. 86 (1876) (Sanghir); *Rosenb. Malay. Archip.* p. 275 (1878); *Guillem. P. Z. S.* 1885, p. 557 (Talisse Isl.); *Blas. Zeitschr. f. d. ges. Orn.* 1885, p. 307; *id. J. f. O.* 1885, p. 403; *id. Ornis*, iv. p. 617 (1888).

Zonænas radiata, *Bp. Consp. Av.* ii. p. 38 (1854).

Zonœnas radiata, *Bp. Compt. Rend.* xxxix. p. 1076 (1854), xl. p. 217, n. 102 (1855); *id. Coup d'œil Ordre Pig.* pp. 17, 55, n. 102 (1855); *Rchnb. Tauben*, i. p. 112, t. 230. f. 1287 (1862); *G. R. Gr. Handlist*, ii. p. 230, n. 9207 (1870); *Wald. Tr. Zool. Soc.* viii. p. 84 (1872); *Meyer, Ibis*, 1879, pp. 135, 136, 137; *Tweedd. Orn. Works*, p. 184 (1881); *Meyer, Sitzb. u. Abh. Ges. Isis*, 1884, Abh. i. p. 6.

Carpophaga gularis (*errore*), *Brüggem. Abh. Naturw. Ver. Brem.* v. p. 101 (1876).

Adult male. Head, neck, and breast grey, lighter on the forehead and throat; hind neck deep purple-blue, changing into coppery purple lower down; rest of the upper parts golden green, more or less with a coppery tinge on the back; lower abdomen grey washed with chestnut; under tail-coverts chestnut or cinnamon; primaries blackish, with the outer webs dark blue edged with green; under surface of the wing dark green, the under wing-coverts with a green lustre; tail above green, underneath blackish brown, above and below with a grey band about the middle: "bill olive-green, black at tip; orbits greenish; iris orange; feet coral-red" (*Wallace*). Total length about 15 inches, wing 8, tail 6, bill 0·8.

Female. Like the male.

Hab. Celebes and Sanghir Islands.

a. Ad. sk.	N. Celebes.	Tweeddale Coll.
b. Ad. sk.	Menado.	Wallace Coll.
c. ♂ ad. sk.	Tondano.	Wallace Coll.
d. ♀ ad. sk.	Macassar.	Wallace Coll.
e. Ad. sk.	Macassar (*A. R. Wallace*).	Gould Coll.

26. Carpophaga finschi.

Carpophaga finschii, *Rams. Journ. Linn. Soc., Zool.* xvi. p. 129 (3 Nov. 1881); *Tristr. Ibis*, 1882, p. 144, n. 80; *Rams. Ibis*, 1882, p. 473; *Salvad. Ann. Mus. Civ. Gen.* xviii. p. 428, n. 9 (1882); *id. Orn. Pap. e Mol.* iii. p. 558; *Rams. Pr. Linn. Soc. N. S. W.* vii. p. 43 (1882); *id. Journ. Linn. Soc., Zool.* xvii. p. 25 (1883); *Rchnw. & Schl. J. f. O.* 1883, p. 403; *Sharpe, in Gould's B. New Guin.* pt. xvii. pl. 2 (1884); *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 57 (*Agg. Orn. Pap. e Mol.* p. 183) (1891).

Adult male. "Above dark grass-green from the middle of the back to the upper tail-coverts, many of the feathers coppery or golden green, the lower mantle and upper back reddish or coppery; wing-coverts green with an emerald appearance, the lesser series washed with coppery like the middle of the back; bastard-wing, primary-coverts, and quills blackish, externally marked with deep indigo, which is glossed with bronzy green, especially on the secondaries; tail-feathers deep blue for their basal half, succeeded by a broad band of ashy grey, which is again succeeded by a narrow bar of black, leaving a broad terminal band of green; entire head, hind neck, and upper mantle clear blue-grey, the base of the forehead and lores washed with pale rose; feathers above and below the eyes creamy white, purer white underneath the latter; ear-coverts pale rosy, extending on to the sides of under crown; cheeks and throat also pale rosy; lower throat, fore neck, and chest a little deeper rosy pink, with a slight bloom of blue-grey pervading the lower throat and also the sides of the neck, scarcely developed at all on the fore neck and chest; remainder of under surface from the breast downwards deep orange or brick-red, rather more intense on the under tail-coverts; under wing-coverts dark slaty grey, the feathers being dusky, edged with the latter colour; axillaries like the breast; edge of wing washed with green and blue; greater under coverts and quills below dusky slate-colour. Total length 13·5 inches, wing 8·3, tail 4·5, bill 0·95, tarsus 1·1." (*Sharpe.*)

Hab. New Ireland.

27. Carpophaga basilica.

Columba basilis, *Temm. Mus. Lugd.*

Carpophaga basilica, *Sundev. in litt.* (*Bp. Consp. Av.* ii. p. 35, 1854); *Bp. Compt. Rend.* xliii. p. 836 (1856); *Wall. Ibis*, 1865, p. 385, n. 59; *id. J. f. O.* 1866, p. 281, n. 59; *Gieb. Thes. Orn.* i. p. 584 (1872); *Schleg. Mus. P.-B.* Columbæ, p. 96 (1873); *Rosenb. Reist. naar Geelvinkb.* p. 7 (1875); *Salvad. Ann. Mus. Civ. Gen.* vii. p. 790 (1875), ix. p. 201, n. 48 (1876); *Rosenb. Malay. Archip.* p. 407 (1879); *Salvad. Orn. Pap. e Mol.* iii. p. 96 (1882); *Pleske, Bull. Acad. Pétersb.* xxix. p. 535 (1884) (Ternate); *Guillem. P. Z. S.* 1885, p. 575 (Batchian); *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 56 (*Agg. Orn. Pap. e Mol.* p. 182) (1891).

Ducula basilica, *Bp. Consp. Av.* ii. p. 35 (1854); *id. Compt. Rend.* xxxix. p. 1076 (1854), xl. p. 217, n. 95 (1855); *id. Coup d'œil*

Ordr. Pig. pp. 16, 55, n. 95 (1855); *id. Compt. Rend.* xliii. p. 836 (1856); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 10 (1873); *Heine & Rchnw. Nomencl. Mus. Hein. Orn.* p. 282 (1890) (New Guinea!).
Columba basilica, *Schleg. Handl. Dierk.* i. pp. 409, 480, Vog. pl. v. f. 65 (1857).
Carpophaga (Ducula) basalis, *G. R. Gr. P. Z. S.* 1860, p. 360.
Ducula basilis, *Rchnb. Tauben*, i. p. 115 (1862).
Carpophaga basileus, *Finsch, Neu-Guin.* p. 177 (1865).
Ducula basalica, *G. R. Gr. Hand-list*, ii. p. 230, n. 9196 (1870).
Carpophaga basilis, *Pelz. Verh. z.-b. Ges. Wien*, 1876, p. 719.
Carpophaga basalica, *Tristr. Cat. Coll. B.* p. 42 (1889).
Ducula basalica, *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 282 (1890).

Adult. Head, neck, and upper breast pale vinous; hind neck ashy; back, rump, upper tail-coverts, and upper wing-coverts metallic bronze-green; lower breast, abdomen, and under tail-covert uniform pale cinnamon; primaries steel-blue; secondaries metallic green on the outer web, steel-blue on the inner one; quills below slate-grey, under wing-coverts brown with bronze-green lustre; tail above steel-blue, with a broad grey apical band, below dark grey, with a light grey apical band: "bill dusky lead-colour; iris dark red; feet coral-red; eyelids red" (*Wallace*). Length about 16·5 inches, wing 8·64, tail 5·5, bill 0·9, tarsus 1·25.

Hab. Halmahera group—Halmahera, Ternate, Morty, Batchian, and Obi Islands.

a–d. ♂ ad. et ad. sk.	Batchian.	Wallace Coll.
e. Ad. sk.	Batchian (*Wallace*).	Gould Coll.
f. Ad. sk.	Batchian.	Salvin-Godman Coll.

28. Carpophaga rufiventris.

Columba rufigaster (!), *Q. & G. Voy. Astrol.* p. 245, pl. 27 (1830) (type examined); *Less. Compl. de Buff., Ois.* viii. p. 89 (1837); *id. op. cit.* 2nd ed. p. 293 (1838); *Prév. & Knip, Pig.* pl. 9 (1838–43).
Carpophaga rufigaster, *G. R. Gr. Gen. B.* ii. p. 469, n. 24 (1844); *Sclat. Journ. Pr. Linn. Soc.* ii. p. 146 (1858); *G. R. Gr. P. Z. S.* 1858, p. 196, 1859, p. 159; *id. Cat. B. New Guin.* pp. 48, 61 (1859); *id. P. Z. S.* 1861, p. 437; *Wall. Ibis*, 1865, p. 387, n. 73; *Finsch, Neu-Guin.* p. 178 (1865); *Wall. J. f. O.* 1866, p. 281, n. 73; *Gieb. Thes. Orn.* i. p. 588 (1872); *Schleg. Mus. P.-B.* Columbæ, p. 97 (1873); *Salvad. Ann. Mus. Civ. Gen.* vi. p. 88 (1874); *Rams. Pr. Linn. Soc. N. S. W.* iii. p. 292 (1878).
Zonœnas rufigaster, *Rchnb. Av. Syst. Nat.* p. xxvi (1852); *Bp. Consp. Av.* ii. p. 38 (1854); *id. Compt. Rend.* xxxix. p. 1076 (1854), xl. p. 217, n. 104 (1855); *id. Coup d'œil Ordr. Pig.* pp. 17, 55, n. 104 (1855); *Rosenb. N. T. N. I.* xxv. p. 249, n. 232 (1863); *id. J. f. O.* 1864, p. 132, n. 232; *G. R. Gr. Hand-list*, ii. p. 230, n. 9208 (1870).
Hemiphaga rufigastra, *Rchnb. Tauben*, i. p. 114, t. 232. f. 1296 (1862), ii. p. 182 (1862).
Carpophaga rufiventris, *Salvad. Ann. Mus. Civ. Gen.* vii. p. 790 (1875), ix. p. 201, n. 49 (1876), x. p. 159 (1877); *D'Alb. & Salvad. Ann. Mus. Civ. Gen.* xiv. p. 120 (1879); *Rams. Pr. Linn. Soc. N. S. W.* iv. p. 101, n. 161 (1879); *D'Alb. Nuova Guin.* pp. 528, 582,

588 (1879); *Nehrk. J. f. O.* 1885, p. 34 (Waigiou); *Guillem. P. Z. S.* 1885, p. 660; *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 57 (*Agg. Orn. Pap. e Mol.* p. 183) (1891).

Carpophaga, nov. sp. (!), *D'Alb. Sydn. Mail*, 1877, p. 248; *id. Ann. Mus. Civ. Gen.* x. p. 20 (1877).

Carpophaga rufigula (*errore*), *Bernst.* (*nec Salvad.*), *Dagboek*, p. 139 (Sorong) (1883).

Carpophaga rufigastra, *Tristr. Cat. Coll. B.* p. 43 (1889); *Hartert, Kat. Vogelsamml.* p. 189 (1891).

Zonœnas rufiventris, *Heine & Rchnw. Nomencl. Mus. Hein. Orn.* p. 282 (1890).

Adult male. Head and neck pale vinous, whitish round the eyes; hind neck ashy; back and rump metallic green with coppery reflections, which become purple on the rump; upper tail-coverts metallic purple; breast cinnamon, which gradually merges into the light fulvous or isabelline colour of the abdomen and under tail-coverts; wings metallic bronze-green, with coppery reflections on the smaller wing-coverts; primaries dull bronze-green; quills below brown; under wing-coverts cinnamon; tail above brown-purple with a broad grey apical band, below brown with a broad grey apical band: "bill black; iris, eyelids, and feet red" (*Wallace*). Length 13·5 inches, wing 7, tail 4·5, bill 0·90–0·78, tarsus 1·14–1·06.

Female. Like the male.

Hab. New Guinea and the Western Papuan Islands—Waigiou, Salawatti, Mysol, and Jobi.

Jobi specimens should probably be separated, as they have the vinous colour of the head and neck darker, and the upper tail-coverts of a lighter coppery purple.

a, *b*. Ad. sk.	N.W. New Guinea.	Salvin-Godman Coll.
c. Ad. sk.	New Guinea.	Salvin-Godman Coll.
d. Ad. sk.	Dorey.	Wallace Coll.
e. Ad. sk.	Salawatti, July (*von Rosenberg*).	Gould Coll.
f. ♂ ad. sk.	Salawatti, July (*von Rosenbery*).	Tweeddale Coll.
g. ♂ ad. sk.	Waigama, Mysol, Aug. (*von Rosenbery*).	Tweeddale Coll.
h, *i*. Ad. sk.	Mysol.	Wallace Coll.
k. Ad. sk.	Mysol (*Wallace*).	Gould Coll.
l. Ad. sk.	S.E. New Guinea.	K. Hunstein [C.].
m. Ad. sk.	S.E. New Guinea (*A. Goldie*).	Salvin-Godman Coll.
n. Ad. sk.	Vicinity of Port Moresby (*A. Goldie*).	Salvin-Godman Coll.
o. Ad. sk.	Port Moresby.	A. Goldie, Esq. [C.].

29. Carpophaga chalconota.

Carpophaga chalconota, *Salvad. Ann. Mus. Civ. Gen.* vi. p. 87 (1874), vii. p. 790 (1875); *Becc. Ann. Mus. Civ. Gen.* vii. p. 715 (1875); *Finsch, P. Z. S.* 1875, p. 641; *Salvad. Ann. Mus. Civ. Gen.* ix. p. 202, n. 50 (1876), x. p. 150 (1878); *Gieb. Thes. Orn.* iii. p. 793 (1877); *D'Alb. Nuova Guin.* p. 582 (1880); *Salvad. Orn. Pap. e Mol.* iii. p. 100 (1882); *Guillem. P. Z. S.* 1885, p. 660; *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 57 (*Agg. Orn. Pap. e Mol.* p. 183) (1891).

Adult male. Upper part and sides of the head, sides and hind part of the neck ashy; back, rump, and basal upper tail-coverts metallic green, with the edges of the feathers coppery; longer upper tail-coverts metallic bronze-green; throat, fore neck, and breast vinous reddish, blending into the cinnamon colour of the abdomen, flanks, and tibial feathers; vent whitish, with the tips of the feathers cinnamon; under tail-coverts cinnamon, more or less brown on the hidden part; wings metallic bronze-green; primaries brown, but steel-blue towards the base of the outer web; secondaries steel-blue, edged with metallic green on the outer web; tertials almost entirely metallic green; quills underneath brown; under wing-coverts cinnamon; tail above steel-blue, with a dark grey apical band, below greyish brown with the apical band lighter: "bill black; feet dark purple; iris red" (*D'Albertis*). Length 16·11 inches, wing 7·47, tail 5·89, bill 0·86, tarsus 0·98.

Female. Similar to the male.

Hab. Arfak Mountains, New Guinea.

a. Ad. sk.	N.W. New Guinea.	Salvin-Godman Coll.	

b. Ducula.

Type.

Ducula, *Hodgs. As. Researches*, xix. p. 160 (1836); *id. in Gray's Zool. Misc.* p. 85 (1844); *id. J. A. S. B.* xxiv. p. 580 (1855) ..... C. insignis.

Rinopus, *Hodgs. J. A. S. B.* x. pt. 1, p. 28 (1841) (=Ducula).

Rhinopus, *Hodgs. in Gray's Zool. Misc.* p. 85 (1844); *id. J. A. S. B.* xxiv. p. 580 (1855).

Range. From India, through the Burmese countries and the Malay Peninsula to the Sunda Islands.

Tail rather long, with a broad light band at the tip; inner primaries broad to the tip, which is cut obliquely, with a prominent point formed by the tip of the shaft.

Key to the Species.

a. Under tail-coverts chestnut; back liver-brown, with no purple tinge; head grey; throat reddish vinaceous ..... *lacernulata*, p. 215.

b. Under tail-coverts whitish buff; throat white.

a'. Back liver-brown, with no purple tinge; breast rather deep vinaceous ..... *cuprea*, p. 215.

b'. Back liver-brown, with a slight purple tinge.

a''. Upper part of the head and cheeks vinaceous, sometimes with a slight grey tinge..... *insignis*, p. 216.

b''. Upper part of the head and cheeks grey. *griseicapilla*, p. 217.

c'. Back and upper wing-coverts deep purple-chestnut ..... *badia*, p. 218

30. Carpophaga lacernulata.

Columba lacernulata, *Temm. Pl. Col.* 194 (livr. 28, 1823); *Steph. Gen. Zool.* xiv. 1, p. 281 (1826); *Desm. Dict. Sc. Nat.* xl. p. 317 (1826); *Wagl. Syst. Av.* Columba, sp. 16 (1827); *Less. Compl. de Buff., Ois.* viii. p. 91 (1837); *id. op. cit.* 2nd ed. p. 294 (1838).

Carpophaga lacernulata, *G. R. Gr. Gen. B.* ii. p. 469, n. 16 (1844); *Hartl. Syst. Verz. Brem.* p. 98 (1844); *Rchnb. Syn. Av.* Columbariæ, f. 1273 (1847); *Cass. Pr. Ac. Nat. Sc. Philad.* 1854, p. 229; *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 66 (1856); *Wall. Ibis*, 1865, p. 385; *id. J. f. O.* 1866, p. 281; *Blyth, Ibis*, 1870, p. 173; *Gieb. Thes. Orn.* i. p. 585 (1872); *Schleg. Mus. P.-B.* Columbæ, p. 95 (1873); *Elwes, P. Z. S.* 1873, p. 679; *Blyth & Wald. B. of Burm.* p. 144 (1875); *Hume, Str. Feath.* vi. p. 417 (1878); *Nichols. Ibis*, 1882, p. 69; *Pelz. & Lor. Ann. Naturhist. Hofmus.* p. 48 (1888); *Tristr. Cat. Coll. B.* p. 42 (1889); *Hartert, Kat. Vogelsamml.* p. 190 (1891).

Ducula lacernulata, *Bp. Consp. Av.* ii. p. 35 (1854); *id. Compt. Rend.* xxxix. p. 1075 (1854), xl. p. 217, n. 91 (1855); *id. Coup d'œil Ordr. Pig.* pp. 16, 55, n. 91 (1855); *Rchnb. Tauben*, i. p. 115, t. 228. f. 1273 (1862); *G. R. Gr. Hand-list*, ii. p. 230, n. 9193 (1870); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 282 (1890).

? Ducula concolor, *Bp. Compt. Rend.* xliii. p. 836 (1856) (Mus. Berol.).

Adult. Cap and sides of the head ashy; hind neck vinous grey; lower cheeks and throat pale vinous; lower neck, breast, and abdomen grey, with a slight vinous tinge; under tail-coverts chestnut; back, upper wing-coverts, and tertiaries dark brown, with a slight metallic-green tinge; lower back, rump, and upper tail-coverts slate-black; primaries and secondaries dusky black; under wing-coverts dark ashy; tail above slate-black with a broad dark grey apical band, underneath paler: "bill horny black; iris deep crimson; feet pink-red" (*Wallace*). Length 16 inches, wing 8·4, tail 6·25, bill 0·85, tarsus 0·95.

Young. Similar to the adult, only duller and paler.

Hab. Java.

a. ♀ ad. sk.	W. Java.	Wallace Coll.
b. Ad. sk.	Java.	Gould Coll.
c. Ad. sk.	Java.	Purchased.
d. Skeleton.	Java.	Purchased.

31. Carpophaga cuprea.

Columba cuprea, *Jerd. Madr. Journ.* xii. p. 12 (1840) (Wynaad).

Carpophaga badia, *Jerd.* (*nec Raffl.*) *Madr. Journ.* xiii. p. 164 (1844).

Carpophaga insignis, part., *Blyth, J. A. S. B.* xiv. p. 855 (1845?); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 19 (part.) (1856); *Jerd. B. of Ind.* iii. p. 457 (part.) (1863); *Gieb. Thes. Orn.* i. p. 585 (part.) (1872).

Carpophaga cuprea, *Hume, Str. Feath.* iii. p. 328 (1875); *Bourd. & Hume, Str. Feath.* iv. p. 403 (1876); *Hume, Str. Feath.* viii. p. 100 (1879); *Bourd. Str. Feath.* ix. p. 300 (1880); *Davis. Str. Feath.* x. p. 407 (1883); *C. J. W. Taylor, Str. Feath.* x. p. 464 (1887).

Adult male. Head, neck, mantle, and underparts greyish vinous, more greyish on the hind neck and mantle; throat white; under tail-coverts buff-white; back, rump, upper tail-coverts, and wings greyish brown, rump and upper tail-coverts somewhat greyer; primaries above dusky black, underneath greyish brown; under wing-coverts dark grey; tail above slate-black, darker about the middle, and with a broad apical band, underneath paler: "irides, orbits, and feet red; bill red at base, cinereous at tip" (*Jerdon*). Total length about 18 inches, wing 9·25, tail 6·75, bill 0·85, tarsus 1·05.

Female. Similar to the male, only somewhat smaller.

Hab. Southern India.

a, *b*, *c*. ♂ ♀ ad. sk.	Mynall, Travancore, Nov.	T. Bourdillon, Esq. [C.].
d–*h*. ♂ ♀ ad. sk.	Mynall, Travancore, Jan., March, Dec. (*F. Bourdillon*).	Hume Coll.
i. Ad. sk.	Ancola, N. Canara, April.	Hume Coll.
k. Ad. sk.	Malabar.	Tweeddale Coll.
l. Ad. sk.	Madras.	W. Elliot, Esq. [P.].

32. Carpophaga insignis.

Ducula insignis, *Hodgs. As. Res.* xix. p. 162, pl. ix. (head and foot) (1836); *Bp. Consp. Av.* ii. p. 34 (1854); *id. Compt. Rend.* xxxix. p. 1075 (1854), lx. p. 217, n. 89 (1855); *id. Coup d'œil Ordr. Pig.* pp. 16, 55, n. 89 (1855); *Gray, Cat. Hodgs. Coll. B. M.* 2nd ed. p. 67 (1863); *Wall. Ibis*, 1865, p. 386; *G. R. Gr. Hand-list*, ii. p. 230, n. 9194 (part.) (1870); *Wald. Ibis*, 1875, p. 459.

Carpophaga insignis, *G. R. Gr. List Gallinæ B. Mus.* p. 6 (1844); *id. Gen. B.* ii. p. 468, n. 12 (1844); *Blyth, J. A. S. B.* xiv. p. 855 (1845?); *Gray, Cat. Hodgs. Coll. B. M.* p. 122 (1846); *Blyth, Ann. & Mag. N. H.* xix. p. 51 (1847); *id. Cat. B. Mus. A. S. B.* p. 232, n. 1404 (part.) (1849); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 19 (1856); *Rchnb. Tauben*, i. p. 114 (1862); *Jerd. B. of Ind.* iii. p. 458 (1864); *Wall. Ibis*, 1865, p. 398; *Blyth, Ibis*, 1867, p. 148, 1870, p. 173; *Gieb. Thes. Orn.* i. p. 585 (part.) (1872); *Hume, Nests & Eggs*, iii. p. 496 (1873); *id. Str. Feath.* iii. p. 328 (1875), viii. p. 109 (1879); *Salv. Cat. B. Strickl. Coll.* p. 554 (1882); *Hume, Str. Feath.* xi. p. 295 (1888) (Shillong); *Tristr. Cat. Coll. B.* p. 42 (1889).

Rhinopus (Ducula) insignis, *Hodgs. Gray's Zool. Misc.* p. 85 (1844); *id. J. A. S. B.* xxiv. p. 580 (1855).

Carpophaga badia, part., *Cass. Pr. Ac. Nat. Sc. Philad.* 1854, p. 229 (India); *Schleg. Mus. P.-B.* Columbæ, p. 96 (1873).

Adult male. Upper part of the head and of the cheeks, below the eyes, pale reddish vinous, changing into greyish vinaceous on the hind neck; interscapular region and smaller wing-coverts brown tinged with purplish chestnut; rest of the wing-coverts, scapulars, and secondaries brown greyish olive; lower back, rump, and upper tail-coverts dark grey, the longer ones brown-grey; lower part of the cheeks and throat white; crop-region, breast, and abdomen

greyish with a lavender tinge; under tail-coverts white-buff; under wing-coverts grey; under surface of quills brown; tail above blackish grey at the base, nearly black about the middle, and with a broad dark grey apical band; tail below grey, with the apical band much paler: "bill, circle of eyelids, and legs intense sanguine, except the tip of the bill horn-coloured" (*Hodgson*); "irides red" (*Jerdon*). Total length about 18·5 inches, wing 9·7, tail 7·75, bill 0·9, tarsus 1·15.

Female. Similar to the male.

Young. Duller; scarcely any purple tinge on the back and wing-coverts; the latter edged with rufous-chestnut; the head greyish with scarcely any vinous tinge.

Hab. Nepal, Sikhim, Darjeeling, Bootan Doars, and Assam.

The Assam birds approach to a certain extent *C. griseicapilla*, having the upper part of the head anteriorly and the upper cheeks grey.

a, b, c. Ad. sk.	Nepal (*B. H. Hodgson*).	India Museum. (Types of species.)
d, e. Ad. et juv. sk.	Nepal.	B. H. Hodgson, Esq. [P.].
f–m. Ad. sk.	Native Sikhim, Jan.–March, & July (*L. Mandelli*).	Hume Coll.
n–v. Ad. et juv. sk.	Sikhim, March, April, June, Sept., Oct. (*L. Mandelli*).	Hume Coll.
w–b'. Ad. et juv. sk.	Darjeeling.	Hume Coll.
c'. Ad. sk.	Darjeeling, May (*H. J. Elwes*).	Hume Coll.
d', e', f'. Ad. sk.	Darjeeling.	Seebohm Coll.
g'. Ad. sk.	Bhotan Doars, Feb. (*L. Mandelli*).	Hume Coll.
h'. ♂ ad. sk.	Shillong, Assam, July (*J. Cockburn*).	Hume Coll.
i'. Ad. sk.	Assam.	Tweeddale Coll.
k'. Ad. sk.	Assam (*Griffiths*).	India Museum [P.].
l'. Ad. st.	Cachar, Oct. (*Inglis*).	Salvin-Godman Coll.

33. Carpophaga griseicapilla.

Carpophaga insignis, *Blyth, Cat. B. Mus. A. S. B.* p. 232, n. 1404 (part.) (1849); *id.* (*nec Hodgs.*) *J. A. S. B.* xxviii. p. 416 (1859) (Tenasserim); *id. B. Burm.* p. 144 (1875).

Ducula griseicapilla, *Wald. Ann. & Mag. N. H.* (4) xvi. p. 228 (1875); *id. Ibis*, 1875, p. 459; *Hume, Str. Feath.* iii. p. 402 (1875); *Wardl. Rams. Ibis*, 1877, p. 467; *Gieb. Thes. Orn.* iii. p. 802 (1877); *Tweedd. Orn. Works*, p. 416 (1881).

Carpophaga griseicapilla, *Davis. Str. Feath.* v. p. 460 (1877); *Hume & Davis. Str. Feath.* vi. p. 418 (1878); *Hume, Str. Feath.* viii. p. 109 (1879); *Oates, B. Brit. Burm.* ii. p. 302 (1883); ? *Hume, Str. Feath.* xi. p. 295 (1888) (Assam); *Salvad. Ann. Mus. Civ. Gen.* (2) vii. p. 424 (1889); *Tristr. Cat. Coll. B.* p. 42 (1889); ? *Hartert, J. f. O.* 1889, p. 433 (Assam).

Adult male. Forehead, crown, nape, cheeks, and ear-coverts

French grey; chin and throat pure white; remainder of lower surface pale grey, the breast being tinged with lilac; under tail-coverts pale cream-colour; back of neck vinous; interscapulary region brown with a vinous tinge; wing-coverts brown like the back, but not so strongly tinted with vinous; quills dark brown, almost black; rump and upper tail-coverts dark ashy; rectrices above dark brown, with a broad grey terminal band; lower surface of rectrices pale grey: "iris greyish white; orbital skin greyish brown; bill reddish plum-colour, whitish at the tip" (*Wardlaw Ramsay*). Total length 18·5 inches, wing 9·5, tail 8, tarsus 1, bill 1.

Female. Similar to the male.

Hab. From Manipur to Tenasserim.

a, b, c. ♂ ad. et ad. sk.	Manipur, April, May (*A. O. H.*).	Hume Coll.
d, e. ♂ ♀ ad. sk.	Karen Hills, March, April (*R. G. W. R.*).	Tweeddale Coll. (Types of species.)
f-k. ♂ ♀ ad. sk.	Mooleyit, Jan., Feb. (*W. Davison*).	Hume Coll.

34. Carpophaga badia.

Columba badia, *Raffl. Tr. Linn. Soc.* xiii. p. 317 (1822) (Sumatra); *Wagl. Syst. Av.* Columba, sp. 18 (1827); *Less. Compl. de Buff., Ois.* viii. p. 92 (1837); *id. op. cit.* 2nd ed. p. 294 (1838).

Columba capistrata, *Temm. Pl. Col.* 165 (livr. 28, 1823); *Steph. Gen. Zool.* xiv. 1, p. 282 (1826); *Desm. Dict. Sc. Nat.* xl. p. 318 (1826); *Less. Tr. d'Orn.* p. 468 (1831); *id. Compl. de Buff., Ois* viii. p. 92 (1837); *id. op. cit.* 2nd ed. p. 295 (1838); *Prév. & Knip, Pig.* pl. 37 (1838-43).

Carpophaga badia, *G. R. Gr. List of Gallinæ B. M.* p. 6 (1844); *id. Gen. B.* ii. p. 568, n. 11 (1844); *Rchnb. Syn. Av.* Columbariæ, f. 1274 (1847); *Cass. Pr. Ac. Nat. Sc. Philad.* 1854, p. 229 (part.); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 19 (1856); *Wall. Ibis*, 1865, pp. 385, 389; *id. J. f. O.* 1866, p. 281; *Blyth, Ibis*, 1870, p. 173; *Gieb. Thes. Orn.* i. p. 584 (1872); *Schleg. Mus. P.-B.* Columbæ, p. 96 (part.) (1873); *Salvad. Ucc. Born.* p. 291 (1874); *Rosenb. Malay. Archip.* p. 108 (Sumatra) (1878); *Hume, Str. Feath.* vi. p. 417 (Mergui? and Malacca) (1878), viii. pp. 67 (Malacca), 109 (1879); *Salvad. Ann. Mus. Civ. Gen.* xiv. p. 246 (1879) (Sumatra); *Nichols. Ibis*, 1882, p. 65; *Snellem. Sum.-Exped.* i. *Voy.* p. 48 (1884); *Vorderm. N. T. N. I.* xlvi. p. 236 (1886); *Sharpe, P. Z. S.* 1887, p. 443 (Perak); *Sharpe, Ibis*, 1888, p. 396 (Kina Balu); *Pelz. & Lorenz, Ann. Naturhist. Hofmus.* iii. p. 47 (1888); *Whitehead, in Sharpe, Ibis*, 1889, p. 437; *Vorderm. N. T. N. I.* xlix. p. 412 (1889); *Everett, Journ. Str. Br. R. As. Soc.* 1889, p. 195; *Tristr. Cat. Coll. B.* p. 42 (1889); *Sharpe, Ibis*, 1890, pp. 135, 284, 291; *Hartert, Kat. Vogelsamml.* p. 190 (1891) (Java); *Sharpe, Ibis*, 1892, p. 441.

Ducula badia, *Bp. Consp. Av.* ii. p. 35 (1854); *id. Compt. Rend.* xxxix. p. 1075 (1854), xl. p. 217, n. 90 (1855); *id. Coup d'œil Ordr. Pig.* pp. 16, 55, n. 90 (1855); *id. Compt. Rend.* xliii. p. 836

(1856); *Rchnb. Tauben*, i. p. 114, t. 228. f. 1274 (1862); *G. R. Gr. Hand-list*, ii. p. 230, n. 9192 (1870); *Sousa, Mus Nac. Lisb.* Columbæ, p. 10 (1873); *Wald. Ibis*, 1875, p. 453; *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 282 (1890).

? Globicera myristicivora, *Bp.* (*nec Scop.*) *Icon. Pig.* pl. 34 (1857); *G. R. Gr. Cat. B. Trop. Isl.* p. 41 (1859).

Carpophaga ænea, *Becc.* (*nec Linn.*) *Ann. Mus. Civ. Gen.* xiii. p. 454 (1878) (Sumatra).

? Carpophaga, sp., *Anders. Journ. Linn. Soc., Zool.* xxi. p. 152 (1887) (Sullivan Island, Mergui Archipelago).

Adult. Crown, lores, and sides of the head ashy, more or less vinous; hind neck vinous; throat white, lower part of the fore neck, breast, and abdomen vinous grey, lower part of the abdomen tinged with rufous; under tail-coverts pale buff; mantle and lesser and median upper wing-coverts maroon, especially on the edges of the feathers; lower back and rump darker, the feathers slightly edged with maroon, upper tail-coverts blackish; greater wing-coverts brown, tinged with maroon on the edges; quills brown; under wing-coverts dark grey; tail above brown, with a broad dark grey apical band, underneath grey with the apical band lighter: "irides ashy; bill dull purple at the base, light at the tip; feet dull purple" (*Beccari*). Length 15·5 inches, wing 9·11, tail 7·07, bill 0·9, tarsus 0·98.

Hab. Malacca, Sumatra, Borneo, and apparently also Java.

Bonaparte describes and figures (Icon. Pig. pl. 34) a bird in the Paris Museum as from the South Seas. I think it belongs to this species, although the tail is coloured grey at the base, but I doubt the accuracy of the plate and description.

a. ♀ ad. sk.	Mts. of Perak.	L. Wray, Esq. [P.].
b. ♂ ad. sk.	Near Klang (*W. Davison*).	Hume Coll.
c-g. Ad. sk.	Malacca, Jan., March, April, & July.	Hume Coll.
h. Ad. sk.	Malacca.	Salvin-Godman Coll.
i. Ad. sk.	Sumatra (*Raffles*).	Indian Museum [P.].
k, l. ♂ ♀ ad. sk.	Kina Balu, Feb.	J. Whitehead, Esq. [P.].
m. ♀ ad. sk.	Mt. Dulit, Oct.	C. Hose, Esq. [C.].
n. Ad. sk.	Indian Archipelago.	Purchased.
o. Ad. st.	Indian Archipelago.	Massena Coll.

c. CRYPTOPHAPS.

	Type.
Cryptophaps, *Salvad. MS.*	C. pœcilorrhoa.

Range. Confined to Celebes.

The type of this subgenus does not seem to have any near allies; perhaps it approaches *Ducula* more than any other generic or subgeneric group; the long and nearly graduated tail is very conspicuous, also the under tail-coverts with dark centres.

35. Carpophaga pœcilorrhoa.

Carpophaga pœcilorrhoa, *Brügg. Abh. Naturw. Ver. Brem.* v. p. 84 (1876) (Celebes).
Gymnophaps pœcilorrhoa, *Pelz. Verh. z.-b. Ges. Wien*, xxvi. p. 720, t. xiii. (1876); *Gould, B. New Guin.* pt. xi. pl. 3 (1880); *Meyer, Ibis*, 1881, p. 169 (North Celebes); *Blas. J. f. O.* 1883, p. 142; *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 282 (1890).
Carpophaga (Ducula), sp., *Lenz, J. f. O.* 1877, p. 378 (Celebes).
Gymnophaps minahassa (*err.*), (*Index*) *J. f. O.* 1883, p. 437.

Adult. General colour above glossy black, shot with olive-green; quills brown, with narrow reddish margins to the outer webs, as well as to the greater wing-coverts; tail blackish, tipped with a narrow band of buffy white; head and mantle dusky grey, somewhat more vinous on the hind neck, the forehead lighter grey; cheeks, ear-coverts, and throat dull grey vinous; lower throat darker ashy, as also the adjacent sides of the neck; the chest light ashy, extending on to the sides of the neck, and forming a conspicuous patch on the mantle; abdomen vinous grey, remainder of under surface brown, mottled with reddish-ochre margins to the feathers; under tail-coverts dark brown, with broad edgings of reddish ochre; under wing-coverts dusky brown, the axillaries rufous chestnut; under surface of quills dark ashy brown: "iris blood-red; bill black violet-red, with the tip grey-green; feet and naked periocular skin cherry-red" (*Platen*). Length about 18 inches, wing 9·04, tail 8, bill 0·85, tarsus 1·22 (*Tristram Coll.*).

The bird figured by Gould is young and of very small size, with no vinous colour on the breast, and with the feathers of the same edged with ochreous, like the abdomen.

Hab. Northern Celebes.

ζ. Zonœnas.

	Type.
Zonœnas, *Rchnb. Av. Syst. Nat.* p. xxvi (1852)	C. muelleri.
Zonænas, *Bp. Consp. Av.* ii. p. 37 (1854).	

Range. Papuan Islands.

General plumage slate-grey or slate-black; mostly with a light band across the middle of the tail.

Key to the Species.

a Tail with a whitish band a little beyond the middle.
  a'. A black collar round the neck..... *muelleri*, p. 221.
b No black collar round the neck.
  a''. Upper and under wing-coverts almost uniform.
    a'''. Upper part of the head grey; hind part of the neck and mantle vinous.

a^4. Upper and under wing-coverts uniform, with no distinct lighter edges ..... *pinon*, p. 222.
b^4. Upper and under wing-coverts with lighter edges ..... *rubiensis*, p. 223.
b'''. Upper part of the head, like the hind neck and mantle, vinous ..... *salvadorii*, p. 223.
b''. Upper and under wing-coverts blackish slate, very distinctly edged with grey } *westermani*, p. 224. } *astrolabiensis*, p. 225.
b. Tail with no whitish band.
c'. General plumage and tail slate-black .... *melanochroa*, p. 225.
d'. Upper parts slate-grey, head lighter; underparts vinous chestnut; under wing-coverts chestnut; tail chestnut, with a slate-grey tinge above ..... *brenchleyi*, p. 225.

36. Carpophaga muelleri.

Columba müllerii, *Temm. Pl. Col.* 566 (livr. 96, 1835) (type examined); *Prév. & Knip, Pig.* ii. pl. 56 (1838–43); *Müll. Verhand. Land- en Volkenk.* p. 22 (1839–44).

Carpophaga mulleri, *G. R. Gr. Gen. B.* ii. p. 469, n. 20 (1844); *Sclat. Journ. Pr. Linn. Soc.* ii. p. 168, n. 143 (1858); *G. R. Gr. P. Z. S.* 1858, pp. 186, 196; *id. Cat. B. New Guin.* pp. 48, 61 (1859); *id. P. Z. S.* 1861, p. 437; *Finsch, Neu-Guin.* p. 177 (1865); *Wall. J. f. O.* 1866, p. 281; *Gieb. Thes. Orn.* i. p. 586 (1872); *Schleg. Mus. P.-B.* Columbæ, p. 93 (1873); *Salvad. Ann. Mus. Civ. Gen.* ix. pp. 41, 202, n. 51 (1876); *Rams. Pr. Linn. Soc. N. S. W.* i. p. 394 (1876); *Sharpe, Journ. Linn. Soc., Zool.* xiii. p. 319 (1877), xiv. 502 (1877); *D'Alb. Sydn. Mail*, 1877, p. 248; *id. Ann. Mus. Civ. Gen.* x. p. 18 (1877); *Rams. Pr. Linn. Soc. N. S. W.* iii. pp. 102, 291 (1878), iv. p. 100, n. 159 (1879); *Sharpe, Journ. Linn. Soc., Zool.* xiv. p. 688 (1879); *Rosenb. Malay. Archip.* p. 561 (1878–79); *D'Alb. & Salvad. Ann. Mus. Civ. Gen.* xiv. p. 145 (1879); *D'Alb. Nuova Guin.* pp. 251, 310, 403, 528, 584, 588 (1880); *Salvad. Orn. Pap. e Mol.* iii. p. 101 (1882).

Zonœnas mülleri, *Rchnb. Av. Syst. Nat.* p. xxvi (1852); *Bp. Consp. Av.* ii. p. 37 (1854); *id. Compt. Rend.* xxxix. p. 1076 (1854), xl. p. 217, n. 100 (1855); *id. Coup d'œil Ordr. Pig.* pp. 17, 55, n. 100 (1855); *Rchnb. Tauben*, i. p. 112, t. 232. f. 1293 (1862), ii. p. 182 (1862); *Rosenb. N. T. N. I.* xxv. p. 249, n. 229 (1863); *id. J. f. O.* 1864, p. 132, n. 229; *G. R. Gr. Hand-list*, ii. p. 230, n. 9205 (1870); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 10 (1873).

Carpophaga muelleri, *Wall. Ibis*, 1865, p. 387, n. 69; *Sharpe, Journ. Linn. Soc., Zool.* xvi. p. 446 (1882); *Guillem. P. Z. S.* 1885, p. 660; *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 57 (*Agg. Orn. Pap. e Mol.* p. 183) (1891).

Adult male. Crown vinous, surrounded by a grey band, which joins the grey throat; a black collar, narrow in front and very broad behind, surrounds the upper part of the neck; lower part of the neck in front and on the sides grey; lower part of the nape, upper back, and upper breast deep purple-chestnut, blending into the vinous-chestnut colour of the lower breast and abdomen; under tail-coverts purple-chestnut; interscapular region, rump, upper tail-coverts, and wings slate-grey; tail dark slate-colour, darker below,

and with a transverse grey band about the middle: "feet purplish red; bill black; orbits pale; iris olive-brown" (*Wallace*). Length 16·50–16·11 inches, wing 9·04–8·45, tail 5·70–5·30, bill 0·86–0·82, tarsus 1·14–1·10.

Female. Like the male.

Hab. Southern New Guinea and Aru Islands.

a, b, c. ♂ ♀ ad. sk.	Aru Islands.	Wallace Coll.
d, e. Ad. et imm. sk.	Port Moresby (*A. Goldie*).	Salvin-Godman Coll.
f. ♂ ad. sk.	S.E. New Guinea, Nov.	Tweeddale Coll.

37. Carpophaga pinon.

Columba pinon, *Q. & G. Voy de l'Uran., Zool.* p. 118, pl. 28 (1824) (type examined); *Desm. Dict. d'Hist. Nat.* xl. p. 320, pl. 29. f. 2 (1826); *Less. Voy. Coq., Zool.* i. p. 342 (1826); *Wagl. Syst. Av.* Columba, sp. 17 (1827); *Less. Tr. d'Orn.* p. 469 (1831); *id. Compl. de Buff., Ois.* viii. p. 88 (1837); *id. op. cit.* 2nd ed. p. 293 (1838); *Prév. & Knip, Pig.* ii. p. 15 (1838–43).

Carpophaga pinon, *Selb. Nat. Libr., Pigeons*, p. 119 (1835); *G. R. Gr. Gen. B.* ii. p. 468, n. 10 (1844); *Blyth, Cat. B. Mus. A. S. B.* p. 232, n. 1405 (1849); *Cass. Pr. Ac. Nat. Sc. Philad.* 1854, p. 230; *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 23 (1856); *Wall. Ann. & Mag. N. H.* (2) xx. p. 476 (1857); *Sclat. Journ. Pr. Linn. Soc.* ii. p. 168, n. 144 (1858); *G. R. Gr. P. Z. S.* 1858, pp. 186, 195; *id. Cat. B. New Guin.* pp. 48, 60 (1859); *id. P. Z. S.* 1859, p. 159, 1861, p. 437; *Finsch, Neu-Guin.* p. 178 (1865); *Wall. Ibis*, 1865, p. 387, n. 70; *id. J. f. O.* 1866, p. 281, n. 70; *Rosenb. Reis naar Zuidoostereil.* p. 49 (1867); *Gieb. Thes. Orn.* i. p. 587 (1872); *Schleg. Mus. P.-B.* Columbæ, p. 94 (1873); *Pelz. Verh. z.-b. Ges. Wien*, 1876, p. 719; *Salvad. Ann. Mus. Civ. Gen.* ix. pp. 41, 202, n. 52 (1876), x. p. 159 (1877); *Rams. Pr. Linn. Soc. N. S. W.* i. p. 394 (1876); *Sharpe, Journ. Pr. Linn. Soc., Zool.* xiii. pp. 319, 502 (1877); *Rams. Pr. Linn. Soc. N. S. W.* iii. pp. 102, 292 (1878), iv. p. 101, n. 162 (1879) (Port Moresby, South Cape!, Duke of York group!, Solomon Islands!); *Sharpe, Journ. Linn. Soc., Zool.* xiv. p. 688 (1879); *Rosenb. Malay. Archip.* pp. 372, 396, 561 (1879); *D'Alb. Nuova Guin.* pp. 458, 582, 584, 588 (1881); *Salvad. Orn. Pap. e Mol.* iii. p. 103 (1882); *Meyer, Abbild. Vogel-Skel.* t. xxix. (1882); *id. Zeitschr. f. ges. Orn.* i. p. 294 (eggs) (1884); *Nehrk. J. f. O.* 1885, p. 34; *Guillem. P. Z. S.* 1885, p. 600; *Tristr. Cat. Coll. B.* p. 42 (1889); *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 57 (*Agg. Orn. Pap. e Mol.* p. 183) (1891).

Zonœnas pinon, *Bp. Consp. Av.* ii. p. 37 (1854); *id. Compt. Rend.* xxxix. p. 1076 (1854), xl. p. 217, n. 101 (1855); *id. Coup d'œil Ordr. Pig.* pp. 17, 55, n. 101 (1855); *Rchnb. Tauben*, i. p. 112, t. 232. f. 1294 (1862), ii. p. 182, *Novit. Suppl.* t. v. ff. 62, 63 (1862); *Rosenb. N. T. N. I.* xxv. p. 249, n. 230 (1863); *id. J. f. O.* 1864, p. 132, n. 230; *G. R. Gr. Hand-list*, ii. p. 230, n. 9204 (1870); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 11 (1873); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 282 (1890).

Muscadivora pinon, *Schleg. Dierent.* p. 210 (1864).

Carpophaga pinonæ, *Brüggem. Abhandl. naturw. Ver. Brem.* v. p. 86 (1876).

Adult male. A band at the base of the bill, chin, and a ring of feathers edging the naked space round the eyes white; crown

grey; neck, upper back, and upper breast greyish vinous; back, rump, and upper tail-coverts slate-grey; scapulars slate-black; lower breast and abdomen purple-chestnut; under tail-coverts chestnut, with the inner webs partly fulvous; tibial feathers and those of the vent and flanks light fulvous tipped with chestnut; wings and tail dark slate-grey, the latter with a transverse pale grey band about the middle: "bill dark lead-colour, tip bluish horny; feet carmine-red; iris and orbits coral-red" (*Wallace*). Length 19·65–17·69 inches, wing 10·85–9·82, tail 6·09–5·89, bill 1·06–0·98, tarsus 1·37.

Female. Like the male.

Hab. New Guinea, except the most south-eastern part, and the Western Papuan Islands—Rawak, Waigiou, Batanta, Salawatti, Mysol, and Aru Islands.

a. ad. sk.	Waigiou.	Wallace Coll.
b, c. ♂ ♀ ad. sk.	Salawatti, July (*von Rosenberg*).	Tweeddale Coll.
d, e. ♂ ad. sk.	Mysol, June, Aug. (*von Rosenberg*).	Tweeddale Coll.
f. Ad. sk.	New Guinea.	Capt. Blackwood, R.N. [P.].
g. ♀ ad. sk.	Dorey (*Wallace*).	Gould Coll.
h. ♂ ad. sk.	N.W. New Guinea, Feb.	Salvin-Godman Coll.
i. Ad. sk.	Port Moresby.	J. Broadbent, Esq. [C.].
k. Ad. sk.	Port Moresby (*O. C. Stone*).	Sharpe Coll.
l. Ad. sk.	S.E. New Guinea, Feb.	Salvin-Godman Coll.
m, n. ♂ ♀ ad. sk.	Aru Islands.	Wallace Coll.
o. ♂ ad. sk.	Aru Islands (*Wallace*).	Gould Coll.

38. Carpophaga rubiensis.

Carpophaga pinon, *Sharpe* (*nec Q. & G.*), *Journ. Linn. Soc., Zool.* xvii. p. 446 (1882) (Taburi).

Carpophaga pinon, var. rubiensis, *Meyer, Sitzb. u. Abh. d. Ges. Isis*, 1884, Abh. i. p. 51 (Rubi).

Carpophaga rubiensis, *Salvad. Ann. Mus. Civ. Gen.* (2) ix. p. 588 (1890) (Rigo), x. p. 825 (1891) (Bujakori); *id. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 57 (*Agg. Orn. Pap. e Mol.* p. 183) (1891).

Similar to *C. pinon*, from which it differs in having the upper and under wing-coverts edged with light grey, the lower back, rump, and basal upper tail-coverts of a lighter grey, and the longer upper tail-coverts darker than the basal ones: "iris coral-red; naked skin round the eyes purple-red, with the external part pale yellow; bill grey, with the base greyish green; feet red" (*Loria*). Dimensions as in *C. pinon*. (*Mus. Genoa*).

Hab. Rubi and S.E. New Guinea.

39. Carpophaga salvadorii.

Carpophaga pinon, *Sclat.* (*nec Q. & G.*) *P. Z. S.* 1876, p. 460 (no exact locality).

Carpophaga salvadorii, *Tristr. P. Z. S.* 1881, p. 996; *Salvad. Ann.*

Mus. Civ. Gen. xviii. p. 428, n. 10 (1882); *id. Orn. Pap. e Mol.* iii. p. 559 (1882); *Rchnw. & Schal. J. f. O.* 1883, p. 404; *Tristr. Cat. Coll. B.* p. 43 (1889); *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 58 (*Agg. Orn. Pap. e Mol.* p. 184) (1891).

Similar to *C. pinon*, but the upper part of the head, instead of being grey, is vinous like the rest of the head, neck, and mantle, where the vinous colour reaches the black scapulars; the chestnut colour of the breast and abdomen is better defined from the vinous of the crop-region than in *C. pinon*. Size about the same.

Hab. Louisiade Archipelago, where it is most likely confined.

a.	Ad. sk.	St. Aignan, Louisiade Archipelago (*Richards*).	Salvin-Godman Coll.
b.	Ad. sk.	St. Aignan, Louisiade Archipelago (*Richards*).	Tristram Coll.
c.	Ad. sk.	[Huon Gulf*.]	Tweeddale Coll.

40. Carpophaga westermani.

Carpophaga westermanii, *Rosenb. in litt.*; *Schleg. N. T. D.* iv. p. 27 (1871); *id. Mus. P.-B.* Columbæ, p. 95 (1873); *Rosenb. Reist. naar Geelvinkb.* p. 143 (1875); *Salvad. Ann. Mus. Civ. Gen.* vii. p. 789 (1875), viii. p. 405 (1876), ix. p. 202, n. 53 (1876); *Gieb. Thes. Orn.* iii. p. 793 (1877); *Rosenb. Malay. Archip.* pp. 561, 594 (1878–79); *Salvad. Orn. Pap. e Mol.* iii. p. 105 (1882); *Meyer, Sitzb. u. Abh. Ges. Isis*, 1884, Abh. i. p. 51 (egg); *id. Zeitschr. f. ges. Orn.* 1886, p. 37 (Kafu); *Tristr. Cat. Coll. B.* p. 43 (1889); *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 58 (*Agg. Orn. Pap. e Mol.* p. 184) (1891).

Carpophaga pinon jobiensis, *Schleg. N. T. D.* iv. p. 26 (1871).

Adult male. Crown grey; a band round the base of the bill, chin, and a ring of feathers edging the naked space round the eyes white; neck, upper breast, and interscapular region ashy, more or less tinged with vinous; rump ashy, the basal upper tail-coverts slate-grey edged with pale grey, the longer ones darker slate-grey with very narrow light edges; lower breast and abdomen dark purple-chestnut; tibial feathers, like those of the vent, white-fulvous, with dark purple tips; under tail-coverts chestnut, with the inner webs fulvescent; scapulars and wings slate-black, upper and under wing-coverts with grey edges, sharply defined; tail slate-black, with a light grey transverse band about the middle: bill lead-colour (?); feet red. Length about 19·66 inches, wing 10·85, tail 5·89, bill 1·06; tarsus 1·41.

Female. Like the male.

Hab. Jobi, Geelvink Bay.

a.	Ad. st.	Jobi Island.	Purchased.
b.	♂ ad. sk.	Ansus, Jobi, April (*A. B. Meyer*).	Salvin-Godman Coll.

* This specimen was mentioned by Mr. Sclater in a paper on birds from the south-east coast of New Guinea (P. Z. S. 1876, p. 460), but the locality 'Huon Gulf' was not given by him, and most probably it is wrong.

41. Carpophaga astrolabiensis.

Carpophaga westermanni astrolabiensis, *Meyer, Abb. u. Ber. kgl. Zool. Anthrop. Mus. Dresd.* no. 4, p. 14 (1891).

Similar to *C. westermani*, but the edges of the smaller upper wing-coverts paler; also the head, neck, breast, lower back, and uropygium are paler.

Hab. N.E. New Guinea, from Astrolabe Bay to Huon Gulf.

I have seen three specimens of this supposed new subspecies, sent to me for inspection by Graf von Berlepsch, and I doubt very much whether they are different from true *C. westermani*: one of them from Huon Gulf, collected by Dr. Finsch, has the neck and mantle more vinaceous than the other two from N.E. New Guinea.

42. Carpophaga melanochroa.

Carpophaga melanochroa, *Sclat. P. Z. S.* 1878, p. 672, pl. xlii.; *Brown, P. Z. S.* 1879, p. 451; *Finsch, Ibis*, 1881, p. 538; *Salvad. Orn. Pap. e Mol.* iii. p. 106 (1882); *Sclat. P. Z. S.* 1883, p. 348; *Tristr. Cat. Coll. B.* p. 42 (1889); *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 58 (*Agg. Orn. Pap. e Mol.* p. 184) (1891).

Adult male (type). Slaty black, almost uniform; head and neck blacker; wing-coverts and scapularies with very distinct grey margins; also the feathers of the back, rump, and upper tail-coverts have paler scale-like lines near the edges, but much more obsolete; under wing-coverts partially tinged with chestnut; under tail-coverts tinged with dull chestnut; tail underneath ashy white or grey: "eyes bright scarlet; legs purple" (*Brown*). Total length about 15·5 inches, wing 9·4, tail 6, bill 1, tarsus 1·15.

Hab. Duke of York Group.

a. ♂ ad. sk.	Duke of York Group (*Rev. G. Brown*).	Salvin-Godman Coll. (Type of species.)

43. Carpophaga brenchleyi.

Carpophaga brenchleyi, *G. R. Gr. Ann. & Mag. N. H.* (4) v. p. 328 (1870) (San Cristoval); *id. Cruise of the 'Curaçoa,' Birds*, p. 388, pl. xviii. (1873); *Sclat. Ibis*, 1874, p. 457; *Salvad. Ann. Mus. Civ. Gen.* ix. p. 201, n. 44 (1876); *id. Orn. Pap. e Mol.* iii. pp. 90, 550 (1882); *Rams. Pr. Linn. Soc. N. S. W.* vii. p. 35 (1882); *Tristr. Ibis*, 1882, pp. 140, 144; *Grant, P. Z. S.* 1888, pp. 186, 199 (Guadalcanar); *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 56 (*Agg. Orn. Pap. e Mol.* p. 182) (1891).

Ducula brenchleyi, *G. R. Gr. Hand-list*, iii. p. 195, n. 9198 (1870).

Carpophaga blenchleyi (*errore*), *Gieb. Thes. Orn.* i. p. 584 (1872).

Adult. Head grey, lighter on the anterior part, and changing into darker slaty grey on the hind neck and rest of the upper parts; throat, cheeks, and ear-coverts vinous reddish, changing into greyish vinous chestnut on the lower throat and crop-region, and into purplish chestnut on the breast and abdomen; under tail-coverts, like the under surface of the tail cinnamon; under wing-coverts cinnamon,

but the greater ones, like the under surface of quills, slate-grey; tail above, when closed, slate-black, with the lateral feathers, when expanded, cinnamon, the outer webs slightly edged with slate-black: "eyes yellow" (*Brenchley*); "iris and legs carmine; bill black" (*Woodford*). Total length about 15 inches, wing 8·7, tail 5·5, bill 0·75, tarsus 1.

Hab. Solomon Islands.

a. Ad. sk.	San Cristoval.	J. Brenchley, Esq. [P.]. (Type of species.)
b. Ad. sk.	Aola, Guadalcanar, June.	C. M. Woodford, Esq. [C.].
c. Ad. sk.	Solomon Islands.	Tweeddale Coll.

16. PHÆNORHINA.

Type.

Phænorhina, *G. R. Gr. P. Z. S.* 1859, p. 165 ..... P. goliath.

Range. Confined to New Caledonia, with the Isle of Pines.

1. Phænorhina goliath.

Carpophaga (Phænorhina) goliath, *G. R. Gr. P. Z. S.* 1859, p. 165, pl. 155 (Isle of Pines); *id. Cat. B. Trop. Isl.* p. 41 (1859); *Verr. & Des Murs, Rev. et Mag. de Zool.* 1860, p. 436; *Rchnb. Tauben*, ii. p. 185 (1862); *Jouan, Mém. Soc. Imp. Sc. Nat. Cherb.* ix. pp. 95, 230 (1863).

Phænorhina goliath, *Verr. & Des Murs, Rev. et Mag. de Zool.* 1862, p. 138 (anatomical details); *G. R. Gr. Hand-list*, ii. p. 229, n. 9185 (1870); *Marie, Act. Soc. Linn. Bord.* xxvii. p. 328 (1870); *id. Ibis*, 1877, p. 362; *Garrod, P. Z. S.* 1878, pp. 104, 105; *Tristr. Ibis*, 1879, p. 184; *Garrod, Voy. Challeng., Birds*, p. 152 (1881); *Layard, Ibis*, 1881, p. 133, 1882, p. 529; *Schal. J. f. O.* 1887, p. 245; *Wiglesw. Aves Polynes.* p. 53, n. 270 (1891).

Carpophaga goliath, *Gieb. Thes. Orn.* i. p. 585 (1872); *Schleg. Mus. P.-B.* Columbæ, p. 95 (1873); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 10 (1873); *Viallane, Ann. Sc. Nat.* (6) *Zool.* vii. art. 12, p. 5, pl. ix. (1878) (digestive organs); *Forbes, Ibis*, 1881, p. 21; *Sclat. P. Z. S.* 1886, p. 320 (cage specimen); *Tristr. Cat. Coll. B.* p. 42 (1889).

Adult male. Head, neck, breast, and upper parts slate-black; a patch of maroon on the median wing-coverts; quills black, mealy grey at the base; grey of the breast changing into deep maroon on the abdomen; vent buff-chestnut; under tail-coverts buff, the longer ones tinged with chestnut towards the tips; tail chestnut, both the base and the apical portion black; the outer feathers are black also on the outer webs; tail underneath cinnamon about the middle, grey at the base and at the tip: "bill and feet vinous red, the former with the tip a deep horn-colour, almost black; iris orange, with red ring" (*Layard*). Total length about 20 inches, wing 11·5, tail 9, bill 1, tarsus 1·1.

Female. Similar to the male.

Young. Duller; maroon patch on the median wing-coverts less distinct; greater wing-coverts edged with rufous chestnut; upper

tail-coverts tinged with rufous; central tail-feathers brown-black, with no chestnut about the middle; lateral tail-feathers less blackish at the tip.

Hab. Isle of Pines and New Caledonia.

a. Ad. st.	Isle of Pines.	Cuming Coll. (Type of species.)
b, *c*. ♀ ad. et ♂ juv. sk.	Moindou, N. Caledonia, July, Oct. (*E. L. Layard*).	Tweeddale Coll.

17. MYRISTICIVORA.

Myristicivora, *Rchnb. Av. Syst. Nat.* p. xxvi (1852) .... Type. M. bicolor.

Cf. *Salvadori, T., Osservazioni intorno alle specie del genere* Myristicivora, *Rchnb.* (*Ann. Mus. Civ. Gen.* ix. pp. 265–277, 1877).

Range. From the Malay Peninsula, Nicobars, and Andamans, through the Malay Archipelago, to Australia.

Key to the Species.

a. Primaries and secondaries black; the innermost of the latter white.
  a'. Under tail-coverts either pure white, or with black spots, irregular, not very conspicuous, more or less broad and more or less numerous; apical portion of the tail black; outer tail-feather, towards the tip of the outer web, mostly white ..... *bicolor*, p. 227.
  b'. Under tail-coverts with regular black spots; tail as in *M. bicolor*.
    a''. Plumage white; wing-coverts, between alula and primary-coverts, white ..... *spilorrhoa*, p. 231.
    b''. Plumage yellowish white; wing-coverts, between alula and primary-coverts, black ..... *subflavescens*, p. 232.
  c'. Only the basal under tail-coverts with broad and conspicuous black spots; black apical band of the tail very broad; outer tail-feather for the greater part or entirely black on the outer web ..... *melanura*, p. 233.
b. All the quills mealy slate-grey, edged with black; under tail-coverts as in *M. melanura*, and tail as in *M. bicolor* and *M. spilorrhoa* .. *luctuosa*, p. 233.

1. Myristicivora bicolor.

Pigeon ou Ramier blanc mangeur de muscade de la Nouvelle Guinée, *Sonner. Voy. Nouv. Guin.* p. 169, pl. 103 (1776).
White Nutmeg Pigeon, *Lath. Syn.* ii. 2, p. 538, n. 31 (1783).
Columba bicolor, *Scop. Del. Flor. et Faun. Insubr.* ii. p. 94, n. 97 (1786) (*ex Sonnerat*).
Columba alba, *Gm. S. N.* ii. p. 780, n. 53 (1788) (*ex Sonnerat*); *Lath. Ind. Orn.* ii. p. 602, n. 34 (1790); *Bonn. Enc. Méth.* i. p. 246 (1790); *Vieill. N. D.* xxvi. p. 362 (1818); *Wagl. Syst. Av.* Columba, sp. 20 (1827); *id. Isis*, 1829, p. 741; *Less. Compl. de*

Buff., Ois. viii. p. 90 (1837); *id. op. cit.* 2nd ed. p. 293 (1838); *Hartl. Syst. Verz.* p. 98 (1844).

Columba littoralis, *Temm. & Knip, Pig.* i. pl. 7 (1808–11); *Temm. Pig. et Gallin.* pp. 99, 448 (1813); *Steph. Gen. Zool.* xi. 1, p. 23 (1819); *Horsf. Tr. Linn. Soc.* xiii. p. 182 (1821); *Steph. Gen. Zool.* xiv. 1, p. 291 (1826); *Desm. Dict. Sc. Nat.* xl. p. 319 (1826).

Carpophaga myristicivora (*errore*), *G. R. Gr. List Gallinæ B. M.* p. 4 (1844); *id. Gen. B.* ii. p. 468, n. 3 (1844); *Blyth, J. A. S. B.* xv. p. 371 (1846); *Beav. Ibis*, 1867, pp. 332, 334.

Carpophaga casta, *Peale, Un. St. Expl. Exp., Zool.* p. 204 (1848) (Sooloo Isl.); *Hartl. Arch. f. Naturg.* xviii. 1, p. 116 (1852); *Bp. Compt. Rend.* xliii. p. 836 (1856).

Carpophaga bicolor, *G. R. Gr. Gen. B.* App. p. 23 (1849); *Blyth, Cat. B. Mus. A. S. B.* p. 232, n. 1436 (1849); *Cass. Pr. Ac. Nat. Sc. Philad.* 1854, p. 232; *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 19 (1856); *Cass. Un. St. Expl. Exp.* 2nd ed. *Orn.* p. 265, pl. 28 (1858); *Sclat. Journ. Pr. Linn. Soc.* ii. p. 167, n. 139 (1858); *G. R. Gr. P. Z. S.* 1858, p. 196; *id. Cat. B. New Guin.* pp. 47, 61 (1859); *id. P. Z. S.* 1861, p. 447; *Blyth, Mouat's App.* p. 362 (1863); *Finsch, Neu-Guin.* p. 177 (1865); *Pelz. Novara Reis., Vög.* p. 107 (1865); *Wall. Ibis*, 1865, p. 386, n. 68; *id. J. f. O.* 1866, p. 281; *Schleg. N. T. D.* iii. pp. 203, 205, 343 (part.) (1866); *Blyth & Beav. Ibis*, 1867, p. 332; *Ball, J. A. S. B.* xxxix. 2, p. 32 (1870); *Gieb. Thes. Orn.* i. p. 584 (part.) (1872); *Ball, Str. Feath.* i. p. 79 (1873); *Schleg. Mus. P.-B.* Columbæ, p. 38 (part.) (1873); *Hume, Nests & Eggs*, iii. p. 496 (1873); *id. Str. Feath.* ii. p. 264 (1874); *Salvad. Cat. Ucc. Born.* p. 292 (1874); *Hume, Str. Feath.* ii. pp. 80, 84, 96, 103, 114, 119, 264 (1874); *Sharpe, P. Z. S.* 1875, p. 108 (part.); *Blyth, B. Burm.* p. 145 (1875); *Koch, Verz. Samml. Vogelbälg.* p. 2; *Brügg. Abh. naturw. Ver. Brem.* v. p. 85 (1876); *Hume, Str. Feath.* vi. p. 418 (1878), viii. p. 109 (1879); *Sharpe, P. Z. S.* 1879, p. 348; *Rosenb. Malay. Archip.* p. 396 (1879); *Kelh. Ibis*, 1881, p. 527; *Vorderm. N. T. N. I.* xlii. p. 227 (1882); *Oates, B. Brit. Burm.* ii. p. 303 (1883); *Sclat. List Vert. An.* 8th ed. p. 443 (1883); *Vorderm. N. T. N. I.* xlvi. p. 236 (1886); *Büttik. Not. Leyd. Mus.* viii. p. 66 (1886); *Sharpe, Ibis*, 1888, p. 202 (note); *Tristr. Cat. Coll. B.* pp. 42, 269 (1889); *Vorderm. N. T. N. I.* xlix. p. 412 (1889); *Everett, Journ. Str. Br. R. As. Soc.* 1889, p. 195; *id. P. Z. S.* 1889, p. 225; *Whiteh. Ibis*, 1890, p. 56; *Sharpe, Ibis*, 1890, pp. 135, 284; *Vorderm. N. T. N. I.* l. p. 507 (Billiton) (1890).

Myristicivora littoralis, *Rchnb. Av. Syst. Nat.* p. xxvi (1852); *Meyer, J. f. O.* 1873, p. 405.

Myristicivora bicolor, *Bp. Consp. Av.* ii. p. 36 (1854); *id. Compt. Rend.* xxxix. p. 1078 (1854), xl. p. 217, n. 98 (1855); *id. Coup d'œil Ordre Pig.* pp. 18, 55, n. 98 (1855); *Moore, P. Z. S.* 1859, p. 466; *Rchnb. Tauben*, i. p. 116, t. 229. ff. 1278–79 (1862), ii. p. 182, t. vi. ff. 64–65 (1862); *Rosenb. N. T. N. I.* xxv. p. 249, n. 228 (1863); *id. J. f. O.* 1864, p. 132, n. 228; *G. R. Gr. Hand-list*, ii. p. 229, n. 9187 (1875); *Gieb. Thes. Orn.* i. p. 584 (1872); *Wald. Tr. Zool. Soc.* viii. p. 84 (1872); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 10 (1873); *Wald. Tr. Zool. Soc.* ix. p. 217 (1875); *Salvad. Ann. Mus. Civ. Gen.* ix. p. 62 (Sanghir Isl.), p. 202, n. 54, p. 270, f. 3, p. 276 (1876); *Sharpe, Tr. Linn. Soc.*, (2) *Zool.* i. pp. 347, 353 (1876); *Lenz. J. f. O.* 1877, p. 379 (Ceram); *Tweedd. P. Z. S.* 1877, p. 550, 1878, pp. 113, 952; *Salvad. P. Z. S.* 1878, p. 89; *id. Ann. Mus. Civ. Gen.* xiv. p. 661 (1879); *Meyer, Ibis*, 1879, p. 136 (Celebes, Ceram!); *Sharpe, P. Z. S.* 1881, p. 799;

Tweedd. Voy. Challeng., Birds, p. 23 (1881); *Salvad. ibid.* p. 71 (1881); *Tweedd. Orn. Works*, pp. 184, 380, 412, 460, 462, 474, 573, 643 (1881); *Wardl. Rams. Tweedd. Orn. Works*, App. p. 659 (1881); *Salvad. Orn. Pap. e Mol.* iii. p. 107 (1882); *Sclat. P. Z. S.* 1883, pp. 51, 195, 200 (Timor Laut); *Kutter, J. f. O.* 1883, p. 315 (Philippines); *Forbes, P. Z. S.* 1884, p. 433; *Meyer, Sitzb. u. Abh. Ges. Isis*, 1884, Abh. i. p. 6; *Guillem. P. Z. S.* 1885, p. 271 (Sulu), p. 416 (Silam), pp. 558, 575 (part.); *Blas. Zeitschr. f. d. ges. Orn.* 1886, p. 197; *Salvad. Ann. Mus. Civ. Gen.* (2) iv. p. 559 (1887) (Nias); *Blas. Ornis*, iv. p. 617 (1888); *Pelz. & Lorenz, Ann. Naturh. Hofmus.* iii. p. 47 (1888); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 291 (1890); *Steere, List Philipp. B.* p. 24 (1890); *Hartert, Kat. Vogelsamml.* p. 190 (1891); *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 58 (*Agg. Orn. Pap. e Mol.* p. 184) (1891).

Myristicivora luctuosa, *Bp.* (*nec Reinw.*) *Consp. Av.* ii. p. 37 (syn. emend.) (1854); *id. Compt. Rend.* xxxix. p. 1078 (1854), xl. p. 217, n. 99 (1855); *id. Coup d'œil Ordre Pig.* pp. 18, 55, n. 99 (1855).

Carpophaga luctuosa, *Motl. & Dillw.* (*nec Reinw.*) *Contr. Nat. Hist. of Lab.* p. 31 (1855); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 20 (part. ?) (1856); *Rosenb. N. T. N. I.* xxv. p. 249, n. 224 (1863); *id. J. f. O.* 1864, p. 132, n. 224; *Gieb. Thes. Orn.* i. p. 586 (part.) (1872); *Rosenb. Malay. Archip.* p. 220 (1878).

Carpophaga littoralis, *Hartl. J. f. O.* 1855, p. 319 (Nicobars); *Finsch, Neu-Guin.* p. 178 (1865); *Rosenb. Versl. Eil. Nias*, p. 20 (— ?) *id. Malay. Archip.* p. 108 (1878).

Carpophaga alba, *G. R. Gr. P. Z. S.* 1860, p. 361.

Muscadivora bicolor, *Schleg. Dierent.* p. 210 (1864).

Myristicivora spilorrhoa, *Whitely* (*nec Gr.*), *in Gurn. Ibis*, 1891, p. 275 (Nicobars).

Myristicivora melanura, part., *Blas. P. Z. S.* 1882, p. 709 (Ceram); *Bernst. Daghoek*, pp. 127, 160 (Ramoi, Kalwal) (1883); *Nehrk.* (*nec Gray*) *J. f. O.* 1885, p. 34 (Waigiou); *Salvad. Ibis*, 1886, p. 153.

Adult male. White with a creamy tinge; winglet, primary-coverts, primaries, and secondaries black; tertiaries white; terminal portion of the tail black, the black occupying about half the central feathers, decreasing in extent towards the outer feathers, and on the outermost pair covering merely a small portion of the tip and part of the outer web, which towards the tip is white, edged with black; under tail-coverts white or with irregular black spots: "legs and feet smalt-blue; bill leaden blue, the tip darkish horny or dark plumbeous; irides dark brown" (*Davison*). Length 16 inches, wing 9, tail 5, bill 0·8, tarsus 1·2.

Female. Like the male.

Hab. The Indian portion of the Malay Archipelago from Mergui and the Andamans and Nicobars as far east as the Philippines, and as far south as Java, and also the Australian portion of the same Archipelago, where it meets the other allied species.

a Ad. sk.	Cochin China, Jan.	Mr. St. Pierre [P.]
b, c. Ad. sk.	Siam.	Purchased.
d. Ad. sk.	Prov. Wellesley.	Purchased.
e, f, g. Ad. sk.	Malacca (*Maingay*).	Tweeddale Coll.

h–l. ♂ ♀ ad. et pull. sk.	Nicobars (*R. J. Wimberley*).	Tweeddale Coll.
m. ♀ pull. sk.	Nicobars, April (*A. de Roepstorff*).	Salvin-Godman Coll.
n. ♀ ad. sk.	Nicobars, March (*A. de Roepstorff*).	Hume Coll.
o, *p*, *q*. ♂ ad. et ad. sk.	Camorta Isl., Nicobars, Feb., Nov. (*W. Davison*).	Hume Coll.
r, *s*. ♂ ♀ ad. sk.	Camorta Isl., Feb. (*R. J. Wimberley*).	Tweeddale Coll.
t, *u*, *v*. ♂ ♀ ad. sk.	Nancowry Isl., Jan., Feb. (*R. J. Wimberley*).	Tweeddale Coll.
w, *x*. ♂ ad. sk.	Nancowry Isl., Feb., March (*W. Davison*).	Hume Coll.
y–c'. ♂ ♀ ad. et ♀ pull. sk.	Trinkut Isl., Feb., March (*W. Davison*).	Hume Coll.
d', *e'*. ♂ ♀ ad. sk.	Trinkut Isl., Feb. (*R. J. Wimberley*).	Tweeddale Coll.
f'–s'. ♂ ♀ ad. et pull. sk.	Treis Isl., March (*W. Davison*).	Hume Coll.
t'. ♂ ad. sk.	Kondul Isl., March (*W. Davison*).	Hume Coll.
u', *v'*. Ad. sk.	Billiton.	Tweeddale Coll.
w'. Ad. sk.	Java.	Purchased.
x', *y'*. Ad. sk.	Java (*Horsfield*).	India Museum [P.].
z'. Ad. sk.	Labuan (*Low*).	Sharpe Coll.
a''. Ad. sk.	Enoe Isl.	Governor Ussher [C.].
b''. Ad. sk.	No locality.	Laugier Coll.
c''. Ad. sk.	Manilla?	Gould Coll.
d''. ♀ ad. sk.	Negros, Philippine Isl., March (*A. B. Meyer*).	Tweeddale Coll.
e'', *f''*, *g''*. ♂ ♀ ad. sk.	Melanipa.	'Challenger' Exp.
h'', *i''*. ♂ ♀ ad. sk.	Nipah, July (*A. H. Everett*).	Tweeddale Coll.
k''. ♂ ad. sk.	Sakuyok Isl., July (*A. H. Everett*).	Tweeddale Coll.
l''. ♂ ad. sk.	Zamboanga, May (*A. H. Everett*).	Tweeddale Coll.
m''. Ad. sk.	Sanghir Isl.	Salvin-Godman Coll.
n''. Ad. sk.	Sanghir Isl. (*Dr. A. B. Meyer*).	Tweeddale Coll.
o''. Ad. sk.	Gilolo.	Wallace Coll.
p''. ♂ ad. sk.	Mysol (*Wallace*).	Gould Coll.
q''. Ad. sk.	[New Guinea].	Wallace Coll.
r''. Ad. sk.	[New Guinea] (*Wallace*).	Tweeddale Coll.
s''. ♂ ad. sk.	Ké Doulau.	'Challenger' Exp.
t'', *u''*. ♂ ♀ ad. sk.	Tenimber Isl., Sept.	H. O. Forbes, Esq. [C.].
v'', *w''*. ♂ ♀ ad. sk.	Tenimber Isl., Sept. (*H. O. Forbes*).	Salvin-Godman Coll.
x'', *y''*. ♂ ♀ ad. sk.	Tenimber Isl., Sept. (*H. O. Forbes*).	Tweeddale Coll.
z''. Ad. st.	Indian Archipelago.	India Museum [P.].
*a*³. ♀ skeleton.		Purchased.
*b*³. Skeleton.	[India.]	Purchased.

2. Myristicivora spilorrhoa.

Carpophaga luctuosa, *Gould* (*nec Reinw.*), *B. Austr.* v. pl. 60 (pt. xii., 1843); *G. R. Gr. Gen. B.* ii. p. 469, n. 4 (part.) (1844); *Rchnb. Vögel Neuholl.* p. 319, n. 421 (1850); *Macgill. Narr. Voy. 'Rattlesn.'* i. p. 115 (1852); *Cass. Pr. Ac. Nat. Sc. Philad.* 1854, p. 231; *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 20 (1856); *Sclat. Journ. Pr. Linn. Soc.* ii. p. 167, n. 142 (1858); *Zuchold, J. f. O.* 1858, p. 40; *Rams. Ibis*, 1865, p. 86 (Port Denison); *Gieb. Thes. Orn.* i. p. 586 (part.) (1872).

Myristicivora luctuosa, *Bp. Consp. Av.* ii. p. 37 (part.) (1854); *Rchnb. Tauben*, i. p. 116, t. 229. f. 1276 (1862).

Carpophaga spilorrhoa, *G. R. Gr. P. Z. S.* 1858, pp. 186, 196 (Aru Isl. and New Holland); *id. Cat. B. New Guin.* pp. 47, 61 (1859); *id. P. Z. S.* 1861, p. 437; *Rosenb. N. T. N. I.* xxv. p. 249, n. 227 (1863); *id. J. f. O.* 1864, p. 132, n. 227; *Finsch, New-Guin.* p. 178 (1865); *Wall. Ibis*, 1865, p. 386, n. 67; *id. J. f. O.* 1866, p. 281; *Schleg. N. T. D.* iii. pp. 204, 343 (1866); *Salvad. Cat. Ucc. Born.* pp. 293, 294, 295 (1874); *Garrod, P. Z. S.* 1874, p. 250 (note); *Sclat. P. Z. S.* 1876, p. 460; *D'Alb. apud Sclat. Ibis*, 1876, p. 361; *Rams. Pr. Linn. Soc. N. S. W.* i. p. 394 (1876); *D'Alb. Sydn. Mail*, 1877, p. 248; *id. Ann. Mus. Civ. Gen.* x. p. 18 (1877); *Rams. Pr. Linn. Soc. N. S. W.* ii. p. 195, n. 519 (1877), iii. p. 103 (1878), iv. p. 131, n. 169 (1879) (South Cape, Louisiade Isl.); ? *Finsch, P. Z. S.* 1879, p. 17 (New Britain); *Sharpe, Journ. Linn. Soc., Zool.* xiv. p. 688 (1879); *D'Alb. & Salvad. Ann. Mus. Civ. Gen.* xiv. p. 146 (1879); *D'Alb. Nuova Guin.* pp. 300, 304, 320, 451, 538, 588 (1880); *Meyer, Verh. z.-b. Ges. Wien*, 1881, p. 773; *Finsch, Vög. d. Südsee*, pp. 28, 39 (1884); *Rams. Tab. List*, p. 18 (1888); *Tristr. Ibis*, 1889, p. 558 (St. Aignan Isl.); *id. Cat. Coll. B.* p. 43 (1889); *Salvad. Ann. Mus. Civ. Gen.* (2) ix. p. 588 (1890).

Myristicivora spilochroa, *Rchnb. Tauben*, ii. p. 183 (1862).

Myristicivora spilorrhoa, *Gould, Handb. B. Austr.* ii. p. 114 (1865); *Rams. Ibis*, 1866, p. 325; *G. R. Gr. Hand-list*, ii. p. 229, n. 9189 (1870); *Wald. Tr. Zool. Soc.* viii. p. 84 (1872); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 10 (1873); *Rams. P. Z. S.* 1878, p. 115; *Macleay, Pr. Linn. Soc. N. S. W.* i. p. 37 (1876); *Masters, ibid.* p. 58, n. 88 (1876); *Salvad. Ann. Mus. Civ. Gen.* ix. p. 40 (1876), p. 202, n. 55 (1876), p. 271 with fig., p. 276 (1877); *Masters, Pr. Linn. Soc. N. S. W.* ii. p. 274 (1877) (Port Darwin); *Rams. Pr. Linn. Soc. N. S. W.* iii. p. 292 (1878); *Salvad. Atti R. Ac. Sc. Tor.* xiii. p. 323 (1878) (Tarawai); *id. Ibis*, 1879, p. 326; *D'Alb. Nuova Guin.* p. 584 (1880); *Salvad. Orn. Pap. e Mol.* iii. p. 111 (1882); *Guillem. P. Z. S.* 1885, p. 661 (Aru); *Heine & Rchnw. Nomencl. Mus. Hein. Orn.* p. 282 (1890); *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 58 (*Agy. Orn. Pap. e Mol.* p. 184)(1891); *North, Rec. Austr. Mus.* i. p. 116 (1891).

Carpophaga bicolor, part., *Schleg. N. T. D.* iii. p. 343 (1866); *id. Mus. P.-B.* Columbæ, p. 98 (part.) (1873); *Sharpe, P. Z. S.* 1875, p. 108 (specim. ex Aru et Australia); *Rosenb. Malay. Archip.* pp. 372, 561 (part.) (1879).

Myristicivora bicolor, *Salvad. & D'Alb.* (*nec Scop.*) *Ann. Mus. Civ. Gen.* viii. p. 832 (1875).

Similar to *M. bicolor*, but the under tail-coverts, the feathers of the vent and some of the flanks, covering the thighs, with regular subapical black spots.

Young birds have the under tail-coverts tinged with ochreous and with the black spots slightly indicated.

Some specimens have part of the white plumage, or the whole of it, tinged with grey.

Hab. Australia, Eastern Papuan Islands, Eastern New Guinea, and also Western New Guinea and Aru Islands, where it meets *M. bicolor*.

a, *b*. ♂ ad. sk.	Aru Isl.	Wallace Coll. (Types of species.)
c, *d*. Ad. sk. [var.].	Saibai.	Rev. W. MacFarlane.
e. Ad. sk. [var.].	Port Moresby (*A. Goldie*).	Salvin-Godman Coll.
f. Ad. st.	New Guinea.	Sir E. Belcher [P.].
g, *h*. ♂ ♀ ad. sk.	Cairncross Isl., Oct. (*Capt. Stanley*).	Voy of H.M.S. 'Rattlesnake.'
i. ♂ ad. sk.	Horn Isl., Torres Straits, Sept.	Voy of H.M.S. 'Alert.'
k. Ad. sk.	Pipers Isl., N.E. Australia.	Gould Coll.
l. ♂ ad. sk.	Port Essington.	J. B. Jukes, Esq. [P.].
m, *n*. Ad. sk. et st.	Port Essington.	Capt. W. Chambers [P.]. (Types of species.)
o, *p*. Ad. sk.	Somerset, Cape York (*Cockerell & Thorpe*).	Salvin-Godman Coll.
q. Ad. sk.	Somerset, Cape York (*Cockerell & Thorpe*).	Tweeddale Coll.
r. Ad. sk.	Port Albany (*C. Coxen*).	Tweeddale Coll.
s. Ad. sk.	N.W. Australia.	Sir G. Grey [P.].
t. Ad. sk.	Australia.	Purchased.
u. Skeleton.	New Guinea.	Purchased.
v. Skeleton.	Port Essington.	Purchased.

3. **Myristicivora subflavescens.**

? Carpophaga luctuosa, *Cass. Pr. Ac. Nat. Sc. Philad.* 1862, p. 320, n. 79 (New Ireland); *Rams.* (*nec Reinw.*) *Pr. Linn. Soc. N. S. W.* i. p. 373 (1876) (New Ireland and Duke of York Island), ii. p. 376 (1878).

Carpophaga spilorrhoa, *Sclat.* (*nec Gray*) *P. Z. S.* 1877, p. 109 (Duke of York Isl.?).

Carpophaga subflavescens, *Finsch*, *Ibis*, 1886, p. 2 (New Ireland); *Sharpe in Gould's B. New Guin.* pt. xxv. pl. 7 (1884); *Ibis*, 1889, p. 140; *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 58 (*Agg. Orn. Pap. e Mol.* p. 184) (1891).

Similar to *M. spilorrhoa*, but the white plumage tinged with yellowish, and the wing-coverts, between the alula and primary-coverts, black, instead of white; the black spots on the under tail-coverts larger.

Hab. New Ireland.

a. ♀ ad. sk.	New Ireland.	Dr. Otto Finsch [C.]. (Type of species.)
b. Ad. sk.	New Ireland? (*Rev. G. Brown*).	Tweeddale Coll.

4. Myristicivora melanura.

? Columba alba, *Less.* (*nec Gm.*?) *Tr. d'Orn.* p. 469 (Amboyna) (1831); *id. Compl. de Buff., Ois.* viii. p. 90 (part.) (1837); *id. op. cit.* 2nd ed. p. 293 (part.) (1838).

Carpophaga (Myristicivora) melanura, *G. R. Gr. P. Z. S.* 1860, p. 361 (Batchian and Gilolo).

? Carpophaga luctuosa (?), *Wall.* (*nec Temm.*) *Ibis*, 1861, p. 285 (Ceram).

Carpophaga melanura, *Wall. P. Z. S.* 1863, p. 33 (Bouru); *Finsch, Neu-Guin.* p. 178 (1865); *Wall. Ibis*, 1865, p. 186, n. 66; *id. J. f. O.* 1866, p. 281; *Schleg. N. T. D.* iii. pp. 205, 343 (1866); *Salvad. Ann. Mus. Civ. Gen.* vii. p. 790 (1875), viii. p. 381 (1876); *Tristr. Cat. Coll. B.* p. 42 (Bouru) (1889).

Carpophaga bicolor, part., *Schleg. N. T. D.* iii. pp. 204, 205, 343 (1866); *Rosenb. Reis naar Zuidoostereil.* p. 125 (1867); *Gieb. Thes. Orn.* i. p. 584 (part.) (1872); *Schleg. Mus. P.-B.* Columbæ, pp. 98, 102, nn. 57, 58, 59, 61, 62 (1873); *Sharpe, P. Z. S.* 1875, p. 108 (part.); *Rosenb.* (*nec Scop*) *Reist. naar Geelvinkb.* p. 8 (1875); *id. Malay. Archip.* p. 323 (Ceram), p. 372 (part.) (1879).

Carpophaga luctuosa, part., *Rosenb. Reis naar Zuidoostereil.* p. 81 (1867).

Myristicivora melanura, *G. R. Gr. Hand-list*, ii. p. 229, n. 9190 (1870); *Salvad. Ann. Mus. Civ. Gen.* vii. p. 790 (1875), viii. p. 381 (1876), ix. p. 203, n. 56 (1876), p. 268 with fig., pp. 269, 276 (1877), xiv. pp. 661 (1879); *id. Orn. Pap. e Mol.* iii. p. 116 (1882); *Blas. & Nehrk. Verh. z.-b. Ges. Wien*, 1882, p. 429 (Amboyna); *Blas. P. Z. S.* 1882, p. 710 (part., Ceram); *Hein. &. Rchnw. Nomencl. Mus. Hein. Orn.* p. 282 (1890); *Salvad. Mem. R. Ac. Sc. Tor.* (2) xliii. p. 59 (*Agg. Orn. Pap. e Mol.* p. 185) (1891).

Myristicivora bicolor, *Guillem.* (*nec Scop.*) *P. Z. S.* 1885, p. 525 (Halmahera); *Salvad. Ibis*, 1886, p. 153.

Similar to *M. bicolor*, but has the basal under tail-coverts only, and the feathers of the vent and some of those covering the thighs, with large black spots; the black tail-band broader, and the outer web of the outer tail-feathers entirely black or nearly so.

Hab. Halmahera and Amboyna groups of the Moluccas.

a. ♀ ad. sk.	Batchian.	Wallace Coll. (Type of species.)
b. Ad. sk.	Batchian.	Tweeddale Coll.
c. ♂ ad. sk.	Obi Lattou (*Leyden Mus.*).	Salvin-Godman Coll.
d, *e*, *f*. ♀ ad. et ad. sk.	Bouru.	Wallace Coll.
g. Ad. sk.	Bouru (*Wallace*).	Seebohm Coll.
h, *i*. ♂ ♀ ad. sk.	Bouru, Dec. (*H. O. Forbes*).	Salvin-Godman Coll.
k. Ad. sk.	Ceram.	Wallace Coll.
l. ♂ ad. sk.	Amboyna.	Wallace Coll.
m. Ad. sk.	Goram (*Wallace*).	Gould Coll.

5. Myristicivora luctuosa.

Columba luctuosa, *Reinw. MS.*; *Temm. Pl. Col.* 247 (livr. 42, 1825); *Steph. Gen. Zool.* xiv. 1, p. 287 (1826); *Desm. Dict. Sc. Nat.* xl. p. 320 (1826); *Wagl. Syst. Av.* Columba, sp. 21 (1827); *Less. Tr. d'Orn.* p. 469

(1831); *id. Compl. de Buff., Ois.* viii. p. 91 (1837); *id. op. cit.* 2nd ed. p. 294 (1838); *Prév. & Knip, Pig.* ii. pl. xl. (1838–43).

Carpophaga luctuosa, *Selb. Natur. Libr., Pig.* p. 119 (1835); *G. R. Gr. Gen. B.* ii. p. 469, n. 4 (part.) (1844); *Rchnb. Syn. Av.* Columbæ, f. 1277 (*nec* 1276) (1847); *Cass. Pr. Ac. Nat. Sc. Philad.* 1854, p. 231 (wrong locality); ? *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 20 (1856); *Wall. P. Z. S.* 1862, pp. 335, 344 (Sula Isl.), 1863, p. 33; *Wall. Ibis*, 1865, pp. 386, 398 (Celebes, Sula Islands); *Schleg. N. T. D.* iii. pp. 203, 343 (1866); ? *Sclat. P. Z. S.* 1867, p. 820; *Gieb. Thes. Orn.* i. p. 586 (part.) (1872); *Sharpe, P. Z. S.* 1875, p. 108; *Brüggem. Abh. naturw. Ver. Brem.* v. p. 85 (1876); *Pelz. Verh. z.-b. Ges. Wien*, 1876, p. 719; *Rosenb. Malay. Archip.* p. 275 (1878); ? *Sclat. List Vert. An.* 8th ed. p. 443 (1883); *Pelz. & Lorenz, Ann. Naturh. Hofmus.* iii. p. 47 (1888); *Tristr. Cat. Coll. B.* p. 42 (1889).

Myristicivora luctuosa, *Rchnb. Syst. Av. Natur.* p. xxvi (1852); *Bp. Consp. Av.* ii. p. 57 (part.) (1854); *id. Compt. Rend.* xxxix. p. 1078 (1854), xl. p. 217, n. 99 (1855); *id. Coup d'œil Ordre Pig.* pp. 18, 55, n. 99 (1855); *Rchnb. Tauben*, i. p. 116 (part.), t. 229, f. 1277 (*nec* 1276) (1862), ii. p. 183 (1862); *G. R. Gr. Hand-list*, ii. p. 229, n. 9188 (1870); *Wald. Tr. Zool. Soc.* viii. p. 84 (1872); ? *Sousa, Mus. Nac. Lisb.* Columbæ, p. 10 (1873); *Salvad. Ann. Mus. Civ. Gen.* vii. p. 672 (1875), ix. pp. 265, 266, 267, 268, 270, 273, 275, 276 (1877); *Lenz, J. f. O.* 1877, p. 378; *Meyer, Ibis*, 1879, p. 136; *Blas. J. f. O.* 1883, p. 139; *Guillem. P. Z. S.* 1885, p. 557; *Blas. Zeitschr. f. ges. Orn.* iii. p. 132 (1886); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 281 (Sulu!) (1890).

Similar to *M. bicolor*, but all the quills, including the tertiaries, slate-grey, with black margins; basal under tail-coverts only, feathers of the vent, and some feathers of the flanks, covering the thighs, with large black spots; tail as in *M. bicolor* and *M. spilorrhoa*, viz., with the black decreasing towards the outer feathers, and the outer ones only black at the tip and on the edge of the outer web.

This species differs from all its allies by all the quills being slate-grey and by the mealy grey colour almost concealing the black of the wings.

Hab. Celebes and Sula Islands.

a, b. Ad. sk.	Menado, N. Celebes.	Gould Coll.
c. Ad. sk.	Menado, N. Celebes.	Wallace Coll.
d. Ad. sk.	N. Celebes.	Wallace Coll.
e, f. Ad. sk.	Celebes.	Tweeddale Coll.
g. Ad. sk.	Celebes.	Salvin-Godman Coll.
h. Ad. st.	Makassar.	Wallace Coll.
i. ♂ ad. sk.	Makassar (*Wallace*).	Gould Coll.
k. Ad. sk.	Sula Isl. (*Wallace*).	Gould Coll.
l. Ad. sk.	Sula Isl. (*Wallace*).	Tweeddale Coll.
m, n. Ad. sk.	Sula Isl.	Wallace Coll.
o. Skeleton.		Zoological Society's Coll.

18. LOPHOLÆMUS.

Type.

Lophorhynchus, *Sw.* (*nec Vieill.* 1816) *Class. B.* ii. p. 348 (1837) ..... L. antarcticus.

Lopholaimus, *G. R. Gr. in Gould's B. of Austr.* v. pl. 61 (pt. v., 1841); *id. List Gen. B.* 2nd ed. App. p. 12 (1842) ..... L. antarcticus.

Lopholæmus, *Agassiz, Nomencl. Zool., Aves*, p. 43 (1846).

Lopholœmus, *Bp. Compt. Rend.* xl. p. 218 (1855).

Range. Eastern Australia, from Cape York to Tasmania.

1. Lopholæmus antarcticus.

Columba antarctica, *Shaw, Zool. of New Holl.* p. 15, pl. 5 (17—?).

Columba dilopha, *Temm. Tr. Linn. Soc.* xiii. p. 124 (1821); *id. Pl. Col.* 162 (livr. 28, 1823); *Steph. Gen. Zool.* xiv. 1, p. 279 (1826); *Desm. Dict. Sc. Nat.* xl. p. 312 (1826); *Wagl. Syst. Av.* Columba, sp. 11 (1827); *Selb. Nat. Libr., Pigeons*, p. 129, pl. 10 (1835); *Knip & Prév. Pig.* ii. pl. 19 (1838–43).

Lophorhynchus dilophus, *Sw. Class. B.* ii. p. 348 (1837).

Lophorhynchus antarcticus, *G. R. Gr. List Gen. B.* p. 58 (1840).

Lopholaimus antarcticus, *Gould, B. Austr.* v. pl. 61 (pt. v., 1841); *G. R. Gr. List Gen. B.* 2nd ed. App. p. 12 (1842); *id. Gen. B.* ii. p. 469 (1844); *Rchnb. Syn. Av.* ff. 1304–5 (1847); *Blyth, Cat. B. Mus. A. S. B.* p. 232, n. 1408 (1849); *Rchnb. Vögel Neuholl.* p. 319, n. 422 (1850); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 25 (1856); *Rchnb. Tauben*, i. p. 121, t. 234. ff. 1304–5 (1862); *Bennett, P. Z. S.* 1862, p. 250; *Sclat. P. Z. S.* 1864, p. 158; *Gould, Handb. B. Austr.* ii. p. 116 (1865); *Pelz. Novara Reis., Vög.* p. 108 (1865); *G. R. Gr. Hand-list*, ii. p. 232, n. 9230 (1870); *Gieb. Thes. Orn.* ii. p. 494 (1875); *Rams. P. Z. S.* 1876, p. 115; *id. Pr. Linn. Soc. N. S. W.* ii. p. 195, n. 520 (1878); *Rams. Tab. List*, p. 18, n. 533 (1888); *North, Descr. Cat. Nests & Eggs*, p. 271 (1889); *id. Rec. Austr. Mus.* i. p. 117 (1891).

Lopholæmus antarcticus, *Bp. Consp. Av.* ii. p. 41 (1854); *id. Compt. Rend.* xxxix. p. 1103 (1854); *id. Coup d'œil Ordr. Pig.* p. 19 (1855); *Sclat.* (?) *Ibis*, 1862, p. 286; *Sclat. P. Z. S.* 1864, p. 158 (living specimens); *Rams. Ibis*, 1866, pp. 325, 326; *Sousa, Mus. Nac. Lisboa*, Columbæ, p. 12 (1873); *Garrod, P. Z. S.* 1873, pp. 468, 630, 1874, pp. 250, 251, 252, 254, 256, 258, 259; *Salv. Cat. B. Strickl. Coll.* p. 554 (1882); *Sclat. List Vert. An.* 8th ed. p. 444 (1883); *Tristr. Cat. Coll. B.* p. 43 (1889) *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 283 (1890); *Hartert, Kat. Vogelsamml.* p. 189 (1891).

Lopholœmus antarcticus, *Bp. Compt. Rend.* xl. p. 218, n. 112 (1855); *id. Coup d'œil Ordr. Pig.* p. 56, n. 112 (1855).

Muscadivora antarctica, *Schleg. De Dierent.* p. 210 (1864).

Stictœnas antarctica, *Schleg. Mus. P.-B.* Columbæ, p. 74 (1873).

Adult. General plumage grey, darker above than below; frontal crest grey, occipital crest rust-red; from the eye to the occiput a line of black, meeting behind, is continued for a short distance down the back of the neck; sides of the head tinged with rust-red; feathers of the chin elongated: the feathers of the neck and breast hackled; quills black, the inner secondaries grey; tail black, with the base grey, and crossed by a band of buffy grey about an inch from the

extremity: "irides fiery orange, surrounded by a lash of pink-red, and seated in a bare mealy space of the same colour, but hardly so bright; bill bright rose-red, inclining to lilac at the tip; fleshy part covering the nostrils and at the base of the lower mandible greenish lead-colour in the male, and lead-colour in the female; feet purplish red; back of the tarsi and soles of the feet greyish brown" (*Gould*). Length about 15 inches, wing 10·4, tail 6, bill (exposed culmen) 0·6, tarsus 1·25.

Young. Crest shorter, and tail-band narrower and less defined.

Hab. Eastern Australia, from Cape York to Tasmania.

a, *b*. Ad. st.	Australia.	
c. Ad. sk.		Linnean Soc. [P.]. (Type of *Columba dilopha*, Temm.)
d. Ad. sk.	Upstart Bay (*J. B. Jukes*).	Voy. of H.M.S. 'Fly.'
e. Ad. sk.		Gould Coll.
f. Ad. sk.	Australia.	Seebohm Coll.
g. Imm. sk.	Queensland.	Sydney Museum [P.].
h. Ad. sk.	S. Queensland.	Tweeddale Coll.
i. Ad. sk.	S.E. Queensland (*J. T. Cockerell*).	Salvin-Godman Coll.

k. Skeleton.

19. HEMIPHAGA.

	Type.
Hemiphaga*, *Bp. Consp. Av.* ii. p. 38 (1854); *id. Compt. Rend.* xxxix. p. 1076 (1854).....	H. novæ zealandiæ.

Range. New Zealand Subregion.

Key to the Species.

a. Outer upper wing-coverts metallic green, with a greyish tinge; hind neck and back uniform coppery chestnut; under tail-coverts white.... [p. 236. *novæ zealandiæ*,

b. Outer upper wing-coverts distinctly greyish.

a'. Hind neck golden green, sharply defined from the coppery chestnut back; under tail-coverts white..... *spadicea*, p. 238.

b'. Hind neck, as well as the neck all round and crop-region, dark metallic green with a purple-blue tinge, sharply defined from the coppery chestnut back; longer under tail-coverts dull metallic green..... [p. 239. *chathamensis*,

1. Hemiphaga novæ zealandiæ.

New Zealand Pigeon, *Lath. Gen. Syn.* ii. pt. 2, p. 640, n. 34 (1783).

Columba novæ-seelandiæ, *Gm. S. N.* i. 2, p. 773, n. 5 (1788); *Ellman, Zool.* 1861, p. 7467.

Columba zealandica, *Lath. Ind. Orn.* ii. p. 603, n. 37 (1790); *Temm. Pig. et Gallin.* i. p. 464 (1813); *Vieill. N. D.* xxvi. p. 354 (1818); *Steph. Gen. Zool.* xi. p. 38 (1819); *Desm. Dict. Sc. Nat.* xl. p. 373 (1826); *Wagl. Syst. Av.* Columba, sp. dub. 4 (1827).

* I suppose that *Hemiphaga* (!) stands for *Hemicarpophaga*.

Columba novæ-zelandiæ, *Bonn. Enc. Méth.* i. p. 246 (1790).
Colombe hagarrero, *Temm. Pig. et Gallin.* i. p. 371 (1813).
Columba spadicea, *Less.* (*nec Lath.*) *Voy. Coq., Zool.* i. 2, p. 710 (1828); *id. Tr. d'Orn.* p. 469 (1831).
Columba leucogaster, *Wagl. Isis*, 1829, p. 739 (*nec Syst. Av.*).
? Columba spadicea leucophæa, *Hombr. & Jacq. Ann. Sc. Nat.* (2) *Zool.* xvi. p. 319 (1841) (Akaroa, Ile Tavai-Pounammou, Nouvelle Zélande).
Carpophaga novæ seelandiæ, *G. R. Gr. in Dieff. Trav.* ii. App. p. 194 (1843).
Columba argetræa, *Forst. Icon. ined.* t. 137; *id.* (*ed. Licht.*) *Descr. An.* p. 80 (1844) (ins. Australi Novæ Zeelandiæ).
Carpophaga novæ zealandiæ, *G. R. Gr. List of Gallinæ B. M.* p. 5 (1844); *id. Gen. B.* ii. p. 468, n. 8 (1844); *Cass. Pr. Ac. Nat. Sc. Philad.* 1854, p. 231 (part.); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 21 (1856); *Cass. U. S. Expl. Exped., Birds*, p. 255 (1858); *Haast, Ibis*, 1862, p. 105; *G. R. Gr. Ibis*, 1862, p. 231; *Sclat.*? *Ibis*, 1862, p. 285; *Layard, Ibis*, 1863, p. 241; *Pelz. Novara Exped., Vögel*, p. 107 (1863); *Buller, Essay Orn. N. Zeal.* p. 13 (1865); *id. New Zeal. Exh.* p. 255 (1866); *Hector, New Zeal. Exh.* p. 276 (Otago) (1866); *Finsch, J. f. O.* 1867, p. 328; *Hutton, Ibis*, 1867, p. 379; *id. Tr. & Pr. N. Z. Inst.* i. pp. 160, 164 (1868); *Finsch, J. f. O.* 1870, p. 334 (part.); *Hutton, Ibis*, 1870, p. 398 (Auckland); *id. Cat. B. N. Zeal.* pp. 21, 75 (1871); *Gieb. Thes. Orn.* i. p. 586 (1872); *Finsch, J. f. O.* 1872, p. 168; *Schleg. Mus. P.-B.* Columbæ, p. 98 (syn. emend.) (1873); *Buller, Hist. B. of New Zeal.* p. 157, pl. 18 (1873); *Buller, Ibis*, 1874, p. 117; *Finsch, J. f. O.* 1874, p. 192 (part.); *Garrod, P. Z. S.* 1874, p. 250; *Sclat. P. Z. S.* 1876, p. 2; *Kirk, Tr. & Pr. N. Zeal. Inst.* xii. p. 248 (albino) (1880); *Salv. Cat. B. Strickl. Coll.* p. 554 (1882); *Finsch, Ibis*, 1882, p. 397; *Bull. Man. B. New Zeal.* p. 41, pl. 18 (1882); *Kirk, Tr. N. Z. Inst.* xviii. p. 129, fig. var. (1885); *Bull. B. N. Zeal.* 2nd ed. i. p. 229, pl. 24 (1888); *Tristr. Cat. Coll. B.* p. 42 (1889); *Kirk, Ibis*, 1889, p. 297 (var.).
Hemiphaga novæ zealandiæ, *Bp. Consp. Av.* ii. p. 38 (1854); *id. Compt. Rend.* xxxix. p. 1077 (1854), xl. p. 217, n. 106 (1855), xli. p. 658 (1855); *id. Coup d'œil Ordr. Pig.* pp. 17, 55, n. 106 (1855); *G. R. Gr. Hand-list*, ii. p. 231, n. 9221 (1870); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 11 (1873); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 283 (1890).
Hemiphaga novæ seelandiæ, *Rchnb. Tauben*, i. p. 113, t. 227. f. 2480 (1862), ii. p. 182, *Novit. Suppl.* t. v. f. 60 (1862).

Adult male. Head, neck, and upper breast shining golden green, with coppery reflections; nape, back, scapulars, and smaller wing-coverts chestnut-purple, with coppery reflections; lower back, rump, and upper tail-coverts greyish metallic green; longer upper tail-coverts bronze-green; lower breast, abdomen, tibial feathers, and under tail-coverts white; primaries brown, with metallic-green lustre on the outer web, and greyish towards the base; secondaries and greater wing-coverts metallic bronze-green; quills underneath brown-grey; under wing-coverts pale grey; tail-feathers above brown with a green lustre, and with the tips lighter brown; tail underneath dark grey, with a broad brown subapical band, scarcely apparent on the outer feathers: "irides and feet carmine-red; soles yellow; bill carmine-red in its basal half, changing to yellow

towards the tip; eyelids pale red" (*Buller*). Total length 21 inches, wing 10·25, tail 7·50, bill to the edge of the frontal feathers 0·6, tarsus 1·25.

Female. Similar to the male, but somewhat duller.

Young. "The underparts have a rufous tinge, which is deepest on the flanks and under tail-coverts; the bill and irides are of a lighter colour than in the adult, and the feet instead of being carmine are of a bright coral-red; the soles pale brown instead of yellow." (*Buller.*)

Hab. New Zealand and Auckland Islands.

a. Ak. sk.	New Zealand.	Sir E. Home [P.].
b. Ad. sk.	New Zealand.	Sir G. Grey [P.].
c, d. ♂ ♀ ad. sk.	New Zealand (*F. Strange*).	Capt. Stokes [P.].
e, f. ♂ ♀ ad. sk.	Dunedin, May.	Hume Coll.
g, h, i. Ad. et imm. sk.	Bay of Islands.	Antarctic Exp.
k. Ad. sk.	Bay of Islands, Nov.	M'Cormick Bequest.
l, m. Ad. et imm. st.	Bay of Islands.	Lieut. A. Smith, R.N. [P.].

2. Hemiphaga spadicea.

Chestnut-shouldered Pigeon, *Lath. Syn. Suppl.* ii. add. p. 375 (1802) (Norfolk Island); *id. Gen. Hist.* viii. p. 30 (1823).

Columba spadicea, *Lath. Ind. Orn. Suppl.* p. lx, n. 7 (1802 ?); *Temm. & Knip, Pig.* fam. seconde, p. 1, pl. 1 (1808); *Temm. Hist. Nat. Pig. et Gallin.* i. pp. 74, 444 (Norfolk Island) (1813); *Vieill. N. D.* xxvi. p. 342 (1818); *Steph. Gen. Zool.* xi. p. 92 (1819); *Vieill. Enc. Méth.* i. p. 377 (1823); *Desm. Dict. Sc. Nat.* xl. p. 310 (1826); *Selb. Natur. Libr., Pigeons*, p. 127, pl. ix. (1835).

Columba gigas, *Ranz. Elem. Zool.* iii. pt. 1, p. 223 (1821).

Columba leucogaster, *Wagl. Syst. Av.* Columba, sp. 12 (1827) (Norfolk Isl.).

Columba princeps, *Vig. P. Z. S.* 1833, p. 78 (Australia!); *Jard. & Selb. Ill. of Orn.* n. s. pl. v. (1836).

Carpophaga spadicea, *G. R. Gr. List of Gallinæ B. M.* p. 6 (1844); *id. Gen. B.* ii. p. 468, n. 9 (1844); *Hartl. Syst. Verz.* p. 98 (1844); *Rchnb. Syn. Av.* Columbariæ, f. 1286 (1847); *Peale, Un. St. Expl. Exped., Birds*, n. 117 (1848); *Hartl. Wiegm. Archiv*, 1852, p. 115; *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 22 (1856) (Australia!); *id. Ibis*, 1862, p. 232 (Norfolk Island); *Gieb. Thes. Orn.* i. p. 588 (1872); ?*Hartert, Kat. Vogelsamml.* p. 189 (S. Australia!) (1891).

Hemiphaga spadicea, *Bp. Consp. Av.* ii. p. 39 (1854); *id. Compt. Rend.* xxxix. p. 1077 (1854), xl. p. 217, n. 107 (1855); *id. Coup d'œil Ordr. Pig.* pp. 17, 55, n. 107 (1855); *v. Pelz. Sitz. Akad. Wiss. Wien*, xli. p. 326 (1860) (*Ibis*, 1860, p. 422); *Rchnb. Tauben*, i. p. 113, t. 230. f. 1286 (1862), ii. p. 182 (1862); *G. R. Gr. Hand-list*, ii. p. 231, n. 9222 (1870); ? *Sousa, Mus. Nac. Lisb.* Columbæ, p. 11 (1873); ? *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 283 (1890).

Wood-quest, *Downing, Pr. R. Soc. Tasm.* iii. pt. ii. p. 208 (1859).

Muscadivora spadicea, *Schleg. De Dierent.* p. 210 (1864).

Adult. Similar to *H. novæ zealandiæ*, but much more greyish on

the wing-coverts, secondaries, rump, and upper tail-coverts, and with the coppery green of the hind neck sharply defined from the chestnut colour of the mantle. Size about that of *H. novæ zealandiæ*.

There is only one specimen in the British Museum, and this not in very good condition, as it has the tail and quills broken. This bird has never been found in Australia, as stated by several ornithologists; probably it is extinct.

Hab. Norfolk Island.

a. Ad. sk. [Norfolk Island.] Old Coll.

3. Hemiphaga chathamensis.

Carpophaga novæ zealandiæ, *Travers, Tr. & Pr. N. Z. Inst.* i. p. 178 (1868) (Chatham Islands); *Finsch, J. f. O.* 1870, p. 334 (part.); *Hutton, Ibis*, 1872, p. 246 (Chatham Islands); *Travers, Tr. & Pr. N. Z. Inst.* v. p. 216 (Chatham Islands) (1873); *Hutton, Ibis*, 1874, p. 38; *Finsch, J. f. O.* 1874, p. 192 (part.); *Bull. Man. B. New Zeal.* p. 41 (part.) (1882).

Carpophaga chathamensis, *Rothsch. P. Z. S.* 1891, p. 312, pl. xxviii. (Chatham Islands); *Buller, Tr. N. Z. Inst.* xxiv. p. 80 (1892).

Carpophaga chathamica, *H. O. Forbes, Nature*, vol. 46, pp. 252–3 (1892).

Adult male. Head dark metallic green, changing on the neck and fore part of the breast into deep metallic green with a purple-blue tinge; interscapular region and wing-coverts up to bend of the wing, lower back, rump, outer wing-coverts, and quills mealy grey, the latter and also the quills with narrow green edges; longer upper tail-coverts grey, with a green tinge; inner quills and their coverts metallic green, with a mealy appearance in the middle; under wing-coverts pearl-grey; quills underneath dark greyish black, lighter towards their base; breast and abdomen snowy white, flanks light grey; basal under tail-coverts grey, partly white on the inner webs, the longer ones dull metallic green; tail above deep steel-blue, with a grey tinge at the base, and the tips edged with pale brown; tail below brown-black, with the base grey, the grey portion increasing on the outer feathers, especially on the outer web: "irides dark red; bill rich orange one third from the base, remainder purple-lake; feet of a pink-red; sides pinkish flesh-colour" (*H. O. Forbes*). Total length 20 inches, wing 10·75, tail 8·5, bill 0·75, tarsus 1·05.

Female. Similar to the male.

Hab. Chatham Islands.

This species, besides being very different in colouring from *H. novæ zealandiæ*, has a much stronger bill; in the extent of the grey colour on the wings and lower back it resembles *H. spadicea*.

a, b. ♂ ad. et ad. sk. Chatham Islands. H. O. Forbes, Esq. [P.]
(Types of *C. chathamica*, Forb.)

Family II. COLUMBIDÆ.

Key to the Subfamilies.

a. Tail moderate, not longer than the wings.	1. *COLUMBINÆ*, p. 240.
b. Tail longer than the wings.	
a'. Tail broad, with the feathers not acuminate at the tip	2. *MACROPYGIINÆ*, p. 333.
b'. Tail rather narrow, with the feathers acuminate	3. *ECTOPISTINÆ*, p. 369.

Subfamily I. COLUMBINÆ.

Key to the Genera.

a. Tarsus feathered for two thirds of its length; lores and eyelids broadly naked.	1. GYMNOPHAPS, p. 240.
b. Tarsus feathered just on the upper part for a small extent, never more than half its length.	
a'. First primary much longer than the sixth	2. COLUMBA, p. 241.
b'. First primary about equal to sixth; tail uniform rufous	3. NESŒNAS, p. 327.
c. Size smaller, not larger than that of the Common Dove; hind neck with very bright metallic colours; sexes often very dissimilar	4. TURTURŒNA, p. 328.

1. GYMNOPHAPS.

	Type.
Gymnophaps, *Salvad. Ann. Mus. Civ. Gen.* vi. p. 86 (1874)	G. albertisii.

Range. New Guinea.

1. Gymnophaps albertisii.

Gymnophaps albertisii, *Salvad. Ann. Mus. Civ. Gen.* vi. p. 86 (1874); *Beccari, Ann. Mus. Civ. Gen.* vii. p. 715 (1875); *Salvad. Ann. Mus. Civ. Gen.* ix. p. 203, n. 57 (1876); *Pelz. Verh. z.-b. Ges. Wien*, 1876, p. 720; *Salvad. Ann. Mus. Civ. Gen.* x. p. 159 (1877); *D'Alb. & Salvad. Ann. Mus. Civ. Gen.* xiv. p. 120 (1879); *D'Alb. Nuova Guin.* pp. 53, 213, 500, 503, 582, 588 (1880); *Sharpe, Journ. Linn. Soc., Zool.* xvi. p. 446 (1882); *Salvad. Orn. Pap. e Mol.* iii. pp. 178, 560 (1882); *Guillem. P. Z. S.* 1885, p. 661 (Arfak and Jobi); *Finsch & Meyer, Zeitschr. f. ges. Orn.* 1886, p. 28 (Horseshoe range); *Meyer, Ibis*, 1890, p. 423 (Constantine Harbour); *De Vis, Ann. Rep. Brit. New Guin.* p. 62 (Cæsar Spur) (1890); *id. Colon. Papers*, n. 103, p. 116 (1890); *id. Ibis*, 1891, p. 41;

Salvad. Ann. Mus. Civ. Gen. (2) x. p. 825 (Bujakori, S.E. New Guinea) (1891); *id. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 59 (*Agg. Orn. Pap. e Mol.* p. 185) (1891).

Adult male. Upper parts lead-grey, the feathers of the back and the upper wing-coverts with a slight green lustre and edged with blackish; throat purple-chestnut; sides of the neck lead-grey like the upper parts; breast amethystine white; abdomen purple-chestnut; tibial feathers and under tail-coverts grey; sides and under wing-coverts lead-grey; quills slate-black; tail also slate-black, with a grey band at the tip: "bill, feet, irides, and naked space round the eyes carmine-red" (*D'Albertis*). Total length about 14 inches, wing 8, tail 5·25, bill 0·7, tarsus 0·95.

Female. Apparently like the male. Some specimens, perhaps not fully adult, have the throat grey mixed with chestnut, the purple-chestnut colour of the abdomen also with a slight grey wash, and the amethystine-white colour of the breast minutely freckled with grey.

Young. Upper parts dusky brown; some of the inner secondaries and their coverts tinged with rusty towards the tips; breast white, the tips of the feathers brown; middle of the abdomen and under tail-coverts tinged with rusty brown.

Hab. New Guinea.

a, *b*. Ad. sk.	Astrolabe Mts.	A. Goldie, Esq. [C.].
c. Ad. sk.	Astrolabe Mts. (*A. Goldie*).	Tweeddale Coll.
d. Juv. sk.	Astrolabe Mts.	Dr. Romilly [P.].
e. Ad. sk.	Port Moresby (*A. Goldie*).	Salvin-Godman Coll.
f, *g*, *h*. Ad. sk.	S.E. New Guinea (*A. Goldie*).	Salvin-Godman Coll.
i. Ad. sk.		Sharpe Coll.
k. Ad. sk.	New Guinea.	Salvin-Godman Coll.

2. COLUMBA*.

	Type.
Columba, *Linn. S. N.* i. p. 279 (1766)	C. livia.
Palumbus, *Kaup, Natürl. Syst.* p. 107 (1829)	C. palumbus.
Les Picazuros, *Less. Compl. de Buff.* viii. p. 95 (1837)	
Alsocomus, "*Tickell*," *Blyth, J. A. S. B.* xi. 1, p. 461 (1842)	C. punicea.
Dendrotreron, *Hodgs. in Gray's Zool. Misc.* p. 85 (1844)	C. hodgsoni.
Patagiœnas, *Rchnb. Av. Syst. Nat.* p. xxv (1852)	C. leucocephala.
Lepidœnas, *Rchnb. ibid.*	C. speciosa.
Lithœnas, *Rchnb. ibid.*	C. livia.
Tæniœnas, *Rchnb. ibid.*	C. albitorques.
Chlorœnas, *Rchnb. ibid.*	C. fasciata.
Stictœnas, *Rchnb. ibid.*	C. arquatrix.
Janthœnas, *Rchnb. ibid.*	C. ianthina.

* I feel quite sure that the numerous species of the genus *Columba* ought to be arranged in several subgenera; but as only some of these can be easily defined, while others defy, at least for the present, precise definition, I have thought it best to leave them all, as a whole, in one genus.

	Type.
Picazurus, *Chenu & Des Murs* (1853), *fide Des Murs in Chenu, Enc. d'Hist. Nat., Ois.* vi. p. 39 (1854?)	C. picazuro.
Strictœnas (*errore*?), *Des Murs in Chenu, Enc. d'Hist. Nat., Ois.* vi. p. 40 (1854?) (=Stictœnas).	
Leucomelæna, *Bp. Consp. Av.* ii. p. 44 (1854) ..	C. leucomela.
Janthænas, *Bp. op. cit.* p. 44 (1854) (=Janthœnas).	
Trocaza, *Bp. op. cit.* p. 45 (1854); *id. Compt. Rend.* xxxix. p. 1104 (1854)	C. trocaz.
Columba, subgen. Palumbæna, *Bp. Consp. Av.* ii. p. 49 (1854)	C. œnas.
Tæniænas, *Bp. op. cit.* p. 49 (1854) (=Tæniœnas).	
Crossophthalmus, *Bp. op. cit.* p. 55 (1854)	C. gymnophthalma.
Chlorœnas, *Bp. Ann. Sc. Nat., Zool.* (2) i. p. 140, n. 1659 *b* (1854) (=Chlorœnas).	
Stictænas, *Bp. ibid.* n. 1660 (1854) (=Stictœnas).	
Patagiænas, *Bp. ibid.* n. 1661 (1854) (=Patagiœnas).	
Lepidænas, *Bp. ibid.* n. 1662 (1854) (=Lepidœnas).	
Leucomelœna, *Bp. Compt. Rend.* xxxix. p. 1104 (1854) (=Leucomelæna).	
Palumbæna, *Bp. Compt. Rend.* xliii. pp. 838, 948 (1856)	C. œnas.
Leucomelaina, *Rchnb. Tauben*, i. p. 52 (1862) (=Leucomelæna).	
Leucotænia, *Rchnb. Tauben*, ii. p. 167 (1862) ..	C. unicincta.
Dendrophaps, *Bp.* (ubi?), *fide G. R. Gr. Handlist*, ii. p. 233 (1870) (=Dendrotreron).	
Columba, subgen. Rupicola, *Bogd. Consp. Av. Imp. Ross.* fasc. i. p. 1 (1884)	C. livia.
Columba, subgen. Sylvicola, *Bogd. op. cit.* p. 3 (1884)	C. œnas?
Cœlotreron, *Heine, Nomencl. Mus. Hein. Orn.* p. 275 (1890) (=Palumbœnas).	
Patagœnas, *Heine, op. cit.* p. 276 (1890) (=Patagiœnas).	

Range. Universally distributed.

Key to the Species *.

a. General plumage not uniform.
  a'. General plumage white-grey; apical half of the tail black (*Leucœnas*) ..... *grisea*, p. 248.

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* I have not seen the following species:—

COLUMBA UNICINCTA.

Columba unicincta, *Cass. Pr. Ac. Philad.* 1859, p. 143 (Ogobai); *Heine, J. f. O.* 1859, p. 434; *Hartl. J. f. O.* 1861, p. 266; *G. R. Gr. Handlist*, ii. p. 232, n. 9239 (1870); *Gieb. Thes. Orn.* i. p. 752 (1872); *Schleg. Not. Leyd. Mus.* iii. p. 57 (1881); *Shell. Ibis*, 1883, p. 277

b'. General plumage not white-grey.
a''. Wing-coverts with some dark bands or patches.
a'''. Two black bands across the wings (*Columba*).
*a*⁴. A white band across the middle of the tail.
*a*⁵. Underparts white ..... *leuconota*, p. 249.
*b*⁵. Underparts grey ..... *rupestris*, p. 250.
*b*⁴. No white band across the tail, which is dark grey with a subapical black band; upper tail-coverts dark slate-grey like the tail.
*c*⁵. Rump white.
*a*⁶. General plumage grey ..... *livia*, p. 252.
*b*⁶. General plumage slate-grey, almost slate-black ..... *gymnocyclus*,
*d*⁵. Rump not pure white. [p. 257.
*c*⁶. Rump very pale grey, like the general plumage..... *schimperi*, p. 258.
*d*⁶. Rump grey like the back; general plumage bluish grey ..... *intermedia*,
b'''. Some dark patches or spots on the innermost upper wing-coverts. [p. 259.
*c*⁴. Feathers of the neck normal; no white nuchal band (*Palumbœnas*).
*e*⁵. Head with no vinaceous tinge on the upper part ..... *œnas*, p. 261.
*f*⁵. Head vinaceous on the upper part ..... *eversmanni*,
*d*⁴. Feathers of the neck lanceolate; a white band below the occiput (*Tæniœnas*) ..... *albitorques*, [p. 264.
b''. Wings with no dark patches or bands. [p. 265.
c'''. Feathers of the neck deeply bifurcated (*Dialiptila*).
*e*⁴. Rump pale grey ..... *guinea*, p. 266.
*f*⁴. Rump dark grey..... *phœnota*, p. 268.
d'''. Feathers of the neck not bifurcated.
*g*⁴. Mantle, scapulars, and wing-coverts decidedly earthy brown (*Picazurus*).

Büttik. Not. Leyd. Mus. vii. p. 226, pl. 6 (1885), x. p. 97 (1888), xi. p. 135 (1889); *id. Reisebild. aus Liber.* pp. 423, 476 (1889).
Leucotœnia unicincta, *Rchnb. Tauben*, ii. p. 167 (1862).

Adult male. "Head above and neck light cinereous; back and upper wing-coverts dark lead-colour, every feather edged with light bluish cinereous, giving a squamose or scale-like character to those parts; rump and upper tail-coverts dark lead-colour, more obscurely edged with bluish ashy. Underparts pale vinaceous, nearly white on the throat and pale ashy on the sides and flanks; middle of the abdomen, tibiæ, and under tail-coverts white. Quills ashy black, narrowly edged externally with white; tail dark lead-colour, nearly black, with one wide transverse band of white across the middle of all the feathers. Under wing-coverts dark cinereous" (*Cassin*). "Iris red, and also the naked space round the eye; bill blackish, point pale horn-colour; feet grey" (*Büttikofer*). Total length about 13 inches, wing 8, tail 5.

Female. Similar to the male.

Hab. Western Africa—Gaboon and Liberia.

Only two specimens are known of this rare species—a male, the type, in the Philadelphia Museum, from the River Ogobai, collected by Duchaillu; and a female, in the Leyden Museum, from Liberia, collected by Büttikofer at Soforé Place.

g^4. Hind neck with narrow grey and black transverse markings or lines.
e^6. Rump pale grey; tail uniform sandy grey, under tail-coverts whitish; round the eyes a ring of prominent papillæ ..... *gymnophthalma*, [p. 269.
f^6. Rump dark grey; tail dark grey, with a broad terminal black band; under tail-coverts dark grey ..... *picazuro*, p. 271.
h^3. Hind neck uniform vinous, with no transverse markings.
g^5. Outer upper wing-coverts broadly edged with white; the white markings on the smaller and median wing-coverts not of a triangular shape, but as apical edges .... *albipennis*, p. 272.
h^5. Outer upper wing-coverts with rather narrow white edges; smaller and median wing-coverts with very conspicuous white triangular spots ..... *maculosa*, p. 273.
h^4. Mantle, scapulars, and upper wing-coverts not earthy brown.
i^5. Upper wing-coverts distinctly spotted with white (*Dendrotreron*).
i^6. Head entirely grey ..... *hodgsoni*, p. 274.
k^6. Anterior part of the head and neck dark vinous; hind part of the head to the occiput grey ..... *arquatrix*, p. 276.
k^5. Upper wing-coverts unspotted.
l^6. Feathers of the nape, or of the neck all round, with very regular dark margins.
a^7. Dark margins confined to the feathers of the nape (*Patagiœnas*). [p. 278.
a^8. Top of the head white ..... *leucocephala*,
b^8. Head vinaceous, with no white cap..... *squamosa*, p. 280.
b^7. Feathers of the neck all round with dark margins (*Lepidœnas*)..... *speciosa*, p. 281.
m^6. Feathers of the nape with no dark margins.
c^7. Head and neck uniform vinaceous, with no metallic colours.
c^8. Bill black; anterior upper wing-coverts broadly margined with white, forming a well-defined white band; wing 8·75 inches ..... *inornata*, p. 284.
d^{8*}. Bill coral-red (yellow in dry skins); anterior and greater wing-coverts with narrow white edgings, wanting in some specimens; wing 7·5 to 8 inches ..... *flavirostris*,
d^7. Head and neck not uniform vinaceous. [p. 285.
e^8. A metallic bronze patch on the occiput and upper hind neck ..... *rufina*, p. 287.
f^8. No metallic bronze patch on the occiput.
a^9. A well-defined scale-like metallic patch patch on the nape.
a. No nuchal white band ..... *caribæa*, p. 290.

β. A white nuchal band or collar (*Chlorœnas*).
a'. Mantle dark olive, with no rufous or chestnut tinge.
a''. Anterior upper wing-coverts of a much lighter grey than the scapulars.
a'''. Tail with a distinct blackish band across ..... *fasciata*, p. 291.
β'''. Tail almost uniform grey, with no blackish band ..... *vioscæ*, p. 293.
β''. Anterior upper wing-converts dark grey, uniform with the scapulars.
γ'''. Middle of the abdomen, vent, and under tail-coverts whitish grey ..... *crissalis*, p. 294.
δ'''. Middle of the abdomen, vent, and under tail-coverts dark grey, more or less tinged with vinaceous ..... *albilinea*, p. 294.
β'. Mantle like the lower part of the hind neck and scapulars, tinged with chestnut ..... *araucana*, p. 296.
b°. No well-defined metallic patch on nape.
γ. Tail paler at the tip; head glossed with green above ..... *laurivora*, p. 297.
δ. Tail not paler at the tip.
γ'. Tail with a broad grey band not at the tip.
γ''. Light tail-band more towards the tip.
ε'''. Scaly feathers of the hind neck metallic green, with purple reflections; on the sides of the neck a patch of feathers with coppery chestnut gloss ..... *bollei*, p. 297.
ζ'''. Scaly feathers of the hind neck tipped with glossy grey ..... *trocaz*, p. 298.
δ''. Light tail-band more towards the base; two well-defined patches on the sides of the neck.
η'''. Patches on the sides of the neck white ..... *palumbus*, p. 299.
θ'''. Patches on the sides of the neck buff ..... *casiotis*, p. 302.
δ'. Tail uniform, with no light band.
ε''. Neck with light spots.
ι'''. Hind neck black, with light silvery spots. [p. 303.
a⁴. Breast vinous ..... *torringtoniæ*,
β⁴. Breast grey ..... *elphinstonei*,
κ'''. Spots nearly all round the neck buff, forming an almost complete collar ..... *pulchricollis*, [p. 304. [p. 305.

ζ''. Neck with no definite spots or patches; back, rump, and wing-coverts with metallic lustre on the margins of the feathers, more or less distinct.

λ'''. General plumage cinnamon; upper part of the head French-grey (*Alsocomus*) ..... *punicea*, p. 306.

μ'''. General plumage grey or slate-grey (*Ianthœnas*).

γ^4. Head and neck French-grey, not sharply defined ..... *palumboides*, [p. 308.

δ^4. Head and neck not French-grey.

a^5. Ground-colour light slate-grey; upper parts with splendid golden purple gloss ..... *versicolor*, p. 309.

β^5. Ground-colour dark slate-grey or slate-black, at least on the upper parts.

a^6. Cheeks and throat black, uniform with the neck.

a^7. A grey crescentic band across the mantle ..... *jouyi*, p. 310.

β^7. No grey crescentic band across the mantle; general colour dark slate; lower part of hind neck and upper part of mantle metallic green; reflections on back purplish ..... *janthina*, p. 310.

β^6. Cheeks and throat not uniform with the neck.

γ^7. Ground-colour of head and throat of a vinous brown, with lilac or purplish gloss .. *nitens*, p. 311.

δ^7. Upper part of the head and throat not of the same colour; cheeks and throat grey or white.

a^8. Cheeks and throat grey.

a^9. Cheeks and throat very dark grey; underparts slate-black ..... *metallica*, p. 312.

β^9. Cheeks and throat pale grey; underparts slate-grey; upper parts dark slate-black; round the neck a chestnut metallic lustre in some lights ..... *griseigularis*, [p. 313.

β^8. Cheeks and throat white.

γ^9. Ground-colour of the upper parts slate-black or slate-grey; underparts more or less vinaceous or purple-chestnut.

a^{10}. Underparts splendid metallic purple, almost uniform ..... *albigularis*, [p. 313.

β^{10}. Underparts chestnut-purple or vinous purple.

aa. Upper part of the head, neck and crop-region metallic purple-chestnut; breast and abdomen nearly the same, but with less metallic reflections; female with head and neck slate-colour with metallic reflections..... *hypænochroa*, [p. 315.

$\beta\beta$. Upper part of the head and hind neck slate-grey, with metallic green or purple reflections; lower part of the fore neck, breast, and abdomen vinous purple in the male; female duller, and with the underparts less vinous and more or less tinged with dull chestnut ..... *vitiensis*, p. 316.

δ^{9}. General plumage both above and below dark slate-grey; the feathers of the upper parts with green or purple metallic edges.

γ^{10}. Upper part of the head black, with no chestnut-purple colour; underparts with rufous-chestnut colour on the edges of the feathers in young birds (or females?) .. .. *leopoldi*, p. 317.

δ^{10}. Upper part of the head dull purple-chestnut .... *castaneiceps*, [p. 318.

ϵ^{7}. Head and throat whitish (*Leucomelæna*).

γ^{8}. Neck like the upper and under parts, brown or slate-black, the feathers broadly margined with rich opaline tint (*Ramsay*).

ϵ^{9}. Ground or non-metallic colour of the feathers blackish brown (*Ramsay*). *pallidiceps*, [p. 319.

ζ^{9}. Ground or non-metallic colour of the feathers slate-blue (*Ramsay*)..... *philippana*, [p. 319.

δ⁴. Neck like the head, breast, and abdomen, white, washed with buff in the adult birds; young birds (?) or females with the upper part of the head and with the neck greyish brown, with a metallic purple lustre ..... *leucomela*, p. 320.

b. General plumage almost uniform brown, or brown more or less vinaceous.

c'. General plumage almost uniform brown, with no vinous tinge whatever; feathers on the sides of the neck with light spots at the tip (*Amaurœnas*) ..... *polleni*, p. 321.

d'. General plumage brown, more or less vinous, and with no light spots on the sides of the neck, but sometimes with reddish spots, more or less obsolete, on the hind neck (*Œnœnas*).

c''. Back and wings sepia olive-brown, more or less tinged with purple.

e'''. Bill rather thick; inner webs of the quills distinctly and constantly tinged with rufous cinnamon ..... *nigrirostris*, [p. 322.

f'''. Bill rather thin, variable in length, 0·65 to 0·38 inch; inner web of quills often uniform, sometimes tinged more or less with reddish; lower part of the hind neck and mantle often with two reddish spots, more or less obsolete, on each side of the feathers; size variable, wing from 7 to 6 inches ..... *plumbea*, p. 323.

d''. Back and wings vinaceous cinnamon; inner webs of the quills constantly tinged with rufous cinnamon ..... *subvinacea*, [p. 326.

1. **Columba grisea.** (Plate VII.)

Columba argentina, *Temm. Mus. Lugd.* (*fide Bp. Consp.* ii. p. 36).

Carpophaga grisea, *G. R. Gr.* (*nec* Columba grisea, *Bonn.*) *List of Gallinæ B. M.* p. 5 (1844) (sine descriptione); *id. List B. Brit. Mus.* Columbæ, p. 20 (1856); *Wall. Ibis*, 1865, pp. 386, 398; *Schleg. N. T. D.* iii. p 204 (1866); *Gieb. Thes. Orn.* i. p. 585 (1872); *Schleg. Mus. P.-B.* Columbæ, p. 103 (1873); *Salvad. Cat. Ucc. Born.* p. 291 (1874); *Sharpe, P. Z. S.* 1875, p. 108; *Rosenb. Malay. Archip.* p. 108 (Sumatra) (1878); *Vorderm. N. T. N. I.* xlvi. p. 236 (1886), xlix. p. 412 (1889); *Everett, Journ. Str. Br. R. As. Soc.* 1889, p. 195.

Myristicivora grisea, *Bp. Consp. Av.* ii. p. 36 (1854); *id. Compt. Rend.* xxxix. p. 1078 (1854), xl. p. 217, n. 97 (1856); *id. Coup d'œil Ordr. Pig.* pp. 18, 55, n. 97 (1855); *id. Compt. Rend.* xliii. p. 836 (1856) (Sumatra); *Rchnb. Tauben*, i. p. 116 (1862); *G. R. Gr. Hand-list*, ii. p. 229, n. 9191 (1870); *Salvad. Ann. Mus. Civ. Gen.* ix. pp. 265, 276 (1877); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 282 (Java!) (1890).

Adult. General colour light grey: bastard-wing, primary-coverts, quills, and apical half of the tail black; bill in the dry skin dark

greenish at the base, yellowish at the tip; feet pale brown (probably red). Total length about 15·5 inches, wing 9·5, tail 6, bill 0·65, tarsus 1·1.

Hab. Borneo and Sumatra.

a. Ad. sk.	Indian Archipelago.	Purchased. (Type of species.)

2. Columba leuconota.

Columba leuconota, *Vig. P. Z. S.* 1831, p. 23; *Gould, Cent. Himal. B.* pl. 59 (1832); *Vigne, P. Z. S.* 1841, p. 6 (Thibet); *Knip & Prév. Pig.* ii. pl. 50 (1838–43); *G. R. Gr. Gen. B.* ii. p. 470, n. 19 (1844); *id. Cat. Hodgs. Coll. B. M.* p. 122 (1846); *Blyth, J. A. S. B.* xiv. p. 864 (1845); *id. Ann. & Mag. N. H.* xix. p. 105 (1847); *id. Cat. B. Mus. A. S. B.* p. 234, n. 1418 (1849); *Bp. Consp. Av.* ii. p. 46 (1854); *id. Compt. Rend.* xxxix. p. 1106 (1854), xl. p. 218, n. 131 (1855); *id. Coup d'œil Ordre Pig.* pp. 22, 56, n. 131 (1855); *Hodgs. P. Z. S.* 1855, p. 126; *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 29 (1856); *Sundev. Svenska Foglarna*, p. 169 (1856); *Adams, P. Z. S.* 1858, p. 497 (Cashmere), 1859, p. 187; *Rchnb. Tauben*, i. p. 54, t. 225. f. 1266 (1862), ii. p. 168 (1862); *G. R. Gr. Cat. Hodgs. Coll. B. M.* 2nd ed. p. 67 (1863); *Jerd. B. of Ind.* iii. p. 471 (1864); *Blyth, Ibis*, 1867, p. 149; *G. R. Gr. Hand-list*, ii. p. 232, n. 9236 (1870); *Gieb. Thes. Orn.* i. p. 745 (1872); *Schleg. Mus. P.-B.* Columbæ, p. 69 (1873); *Elwes, P. Z. S.* 1873, p. 659; *Sousa, Mus. Nac. Lisb.* Columbæ, p. 13 (1873); *Hume, Lahore to Yark.* p. 274 (1873); *Brooks, Str. Feath.* iii. p. 256 (1875); *Sclat. P. Z. S.* 1876, p. 274; *Prjev. in Rowl. Orn. Misc.* ii. p. 380 (1877); *Hume, Str. Feath.* viii. p. 110 (1879); *Bidd. Ibis*, 1881, p. 92; *Scully, t. c.* p. 584; *Salv. Cat. B. Strickl. Coll.* p. 544 (1882); *Sclat. List Vert. An.* 8th ed. p. 446 (1883); *Marsh. Ibis*, 1884, p. 421 (Chamba); *Cord. Ibis*, 1888, p. 219 (Cashmere); *Tristr. Cat. Coll. B.* p. 37 (Assam) (1889); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 275 (1890); *Hart. Kat. Vogelsamml.* p. 186 (1891); *Sharpe, Sc. Res. Sec. Yark. Miss., Aves*, p. 116 (1891).

Columba leucomela (*errore*), *Rchnb. Syn. Av.* f. 1266 (1842).

Columba leucomæna, '*Rchnb.*' (*errore*), *Bp. Consp. Av.* ii. p. 46 (1854).

Adult male. Head dark slate-grey; neck and underparts white, changing into light grey on the flanks, lower abdomen, vent, and under tail-coverts; interscapular region, scapulars, and smaller upper wing-coverts brown-grey; lower back white; rump and upper tail-coverts dark brown; lower upper wing-coverts, the median and the greater ones grey; across the wings three brown bands, one on the median, a second on the greater wing-coverts, and a third on the inner secondaries or tertials; quills grey, with the tips and outer webs brownish; under surface of the wings light grey; axillaries white; tail blackish brown, with a broad whitish band, which on the central feathers is about the middle part, and on the lateral feathers approaches to the tip, the outer feather has also the base of the outer web white: "bill horny black; feet bright light red; irides yellow" (*Scully*). Total length about 13·5 inches, wing 9·8, tail 5·2, bill 0·8, tarsus 1·1.

Female. The grey colour of the wings and back somewhat duller.

Young. Feathers of the back and the wing-coverts with narrow pale edges; the white of the underparts dirty buff.

Hab. From Yarkand and Cashmere, through the Himalayas, to Thibet.

a. ♂ ad. sk.	Gilgit, Aug.	J. Biddulph, Esq. [C.].
b, c, d. Ad. sk.	Koteghur, March.	Hume Coll.
e. Ad. sk.	Kulu, Feb.	Hume Coll.
f, g, h. Ad. sk.	Bussahir, Jan., Feb.	Hume Coll.
i. Ad. sk.	Dhurmsala, Jan.	Hume Coll.
k. ♂ ad. sk.	Chamba, Feb. (*C. H. T. Marshall*).	Hume Coll.
l, m. Ad. sk.	Masuri.	Hume Coll.
n. ♂ ad. sk.	Gangaotri Valley, May (*W. E. Brooks*).	Hume Coll.
o. Ad. sk.	Kumaon.	Hume Coll.
p, q. Ad. sk.	Kumaon (*Strachey*).	India Museum [P.].
r, s, t. Ad. sk.	Nepal.	B. H. Hodgson, Esq. [P.].
u, v, w. Ad. sk.	Nepal (*Hodgson*).	India Museum [P.].
x. Ad. sk.	Nepal, Jan. (*J. Scully*).	Hume Coll.
y–c'. Ad. sk.	Native Sikhim, Jan., April, Nov., Dec. (*L. Mandelli*).	Hume Coll.
f', g'. Ad. sk.	Sikhim.	Hume Coll.
h'. ♂ ad. sk.	Sikhim, Oct. (*W. T. Blanford*).	Tweeddale Coll.
i'. ♀ ad. sk.	Sikhim, Oct.	W. T. Blanford, Esq. [P.].
k'. Imm. sk.	Sikhim, Sept. (*H. J. Elwes*).	Tweeddale Coll.
l', m', n'. Ad. sk.	Darjeeling.	Hume Coll.
o'–r'. Ad. sk.	Darjeeling.	Seebohm Coll.
s'. Ad. sk.	Bootan (*Pemberton*).	India Museum [P.].
t', u'. ♂ ♀ ad. sk.	N. Chuan-che, April (*Prjevalsky*).	Seebohm Coll.
v'–y'. ♂ ♀ ad. sk.	Kansu, Thibet, March, April, Aug. (*Prjevalsky*).	Seebohm Coll.

3. Columba rupestris.

Columba œnas, var. δ. rupestris, *Pall. Zoogr. Ross.-As.* i. p. 560, t. 35 (1811).

Columba œnas, var. rupicola (*errore*), *Pall. op. cit.* p. 562 (descr.) (1811) (*nec* C. rupicola, p. 566).

Columba rupestris, *Bp. Consp. Av.* ii. p. 48 (1854); *id. Compt. Rend.* xxxix. p. 1107 (1854), xl. p. 218, n. 134 (1855); *id. Coup d'œil Ordre Pig.* pp. 23, 56, n. 134 (1855); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 29 (1856); *Sundev. Svenska Foglarna*, p. 169 (1856); *Bp. Icon. Pig.* pl. 75 (1857); *Moore, P. Z. S.* 1859, p. 400; *Rchnb. Tauben*, i. p. 57 (1862), ii. p. 196, *Novit. Suppl.* t. ii. f. 14 (1862); *Blyth, Ibis*, 1862, p. 92; *Swinh. P. Z. S.* 1863, p. 306; *Jerd. B. of Ind.* iii. p. 420 (1864); *Blyth, Ibis*, 1867, p. 149; *Tacz. J. f. O.* 1871, p. 308; *G. R. Gr. Hand-list*, ii. p. 232, n. 9235 (1870); *Swinh. Ibis*, 1870, p. 434, 1871, p. 397; *Gieb. Thes. Orn.* i. p. 730 (1872); *Severtz. Turkest. Jevotn.* p. 68

(1873); *Tacz. J. f. O.* 1873, p. 97; *Severtz. J. f. O.* 1873, p. 324; *Sousa, Mus. Nac. Lisb.* Columbæ, p. 13 (1873); *Gould, B. of As.* vi. pl. 54 (part xxvi., 1874); *Swinh. Ibis*, 1875, p. 125; *Dress. Ibis*, 1876, p. 321; *Tacz. Bull. Soc. Zool. Fr.* i. p. 240 (1876); *id. J. f. O.* 1876, p. 201; *Prjev. Rowl. Orn. Misc.* ii. p. 379 (1877); *David et Oust. Ois. Chine*, p. 385 (1877); *Hume, Str. Feath.* viii. p. 110 (1879); *Tacz. P. Z. S.* 1879, p. 673 (Turkestan); *Bidd. Ibis*, 1881, p. 92; *Scully, t. c.* p. 584; *Salvin, Cat. B. Strickl. Coll.* p. 544 (1882); *Saund. Yarr. Brit. B.* iii. p. 16 (1882); *Hom. & Tancré, MT. orn. Ver. Wien*, 1883, p. 91; *Severtz. Ibis*, 1883, p. 71; *Marsh. Ibis*, 1884, p. 421 (Chamba); *Bogdan. Consp. Av. Imp. Ross.* i. p. 2 (1884); *Tacz. Bull. Soc. Zool. Fr.* 1885, p. 474; *id. P. Z. S.* 1887, p. 609 (Corea); *Stejn. Pr. U.S. Nat. Mus.* 1887, pp. 423, 425; *Cord. Ibis*, 1888, p. 220; *Dorries, J. f. O.* 1888, p. 88; *Pleske, Mém. Ac. Pétersb.* (7) xxxvi. n. 3, p. 45 (1888); *Tacz. P. Z. S.* 1888, p. 467; *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 275 (1890); *Sharpe, Sc. Res. Sec. Yark. Miss. Aves*, p. 116 (1891); *Campb. Ibis*, 1892, p. 242 (Corea).

Columba livia, var., *Adams, P. Z. S.* 1858, p. 497 (Ladak), 1859, p. 187.

Columba leucozonura, *Swinh. Ibis*, 1861, p. 259, 1863, p. 88.

Columba livia, var. rupicola daurica, *Radde, Reis. im Süd. v. Ost-Sib.* ii. p. 282 (1863).

Columba livia, *Homey.* (*nec auct.*) *J. f. O.* 1870, p. 168.

Columba rupicola, *Henders. & Hume* (*nec Pall.*), *Lahore to Yark.* p. 273 (1873); *Scully, Str. Feath.* iv. p. 176 (1876).

Columba livia, part., *Schleg. Mus. P.-B.* p. 64 (specimens from the Lake Baikal) (1873).

Columba rupestris pallida, *Rothsch. & Hartert, Orn. Monatsb.* i. (1893).

Adult male. General plumage dove-grey, darker on the head and throat, lighter on the abdomen and under tail-coverts; neck all round metallic green, with purple lustre; upper breast tinged with vinous; two black bands across the wings, one on the greater wing-coverts, and a second on the inner secondaries or tertials; lower back white; upper tail-coverts plumbeous grey; quills grey, darker on the outer webs and at the tips; secondaries grey, with a broad apical dark grey band; inner under wing-coverts and axillaries white; tail dark slate-grey, with a broad white band somewhat beyond the median part; the outer web of the outer tail-feather almost entirely white, except at the tip: "iris golden red; bill black; feet lobster-red" (*Stoliczka*). Total length about 13·5 inches, wing 9·2, tail 5, bill 0·65, tarsus 1·05.

Female. Similar to the male, only somewhat smaller.

Young. Brown on the crop-region, and very little tinge of vinous below it; wing-coverts and scapulars with narrow whitish edges.

Hab. Central Asia, from Turkestan to Corea, and eastern coast of China, and also from Cashmere to Darjeeling.

There appear to be two races of this bird, as specimens from the Altai are paler than those from Eastern Siberia. Taczanowski has already remarked that the Oussouri bird is somewhat different from the Baikal one, and quite recently Rothschild and Hartert have subspecifically separated the paler form.

a. Ad. sk.	Dauria.	Purchased.
b. Ad. sk.	Lake Baikal, Nov. (*W. Schlüter*).	Seebohm Coll.
c. ♀ ad. sk.	Altai, June.	Dr. Otto Finsch [C.]
d. Ad. sk.	Turkestan.	Hume Coll.
e. ♂ ad. sk.	Turkestan, Aug. (*Russow*).	Seebohm Coll.
f. ♂ ad. sk.	Oibruk, Aug. (*J. Scully*).	Hume Coll.
g, *h*. Imm. sk.	Sakti, Sept. (*Stoliczka*).	India Museum [P.].
i. Ad. sk.	Tangitar, Feb. (*Stoliczka*).	India Museum [P.].
k. Juv. sk.	Luckung, Sept. (*Stoliczka*).	India Museum [P.].
l-*p*. Ad. et juv. sk.	Kashgar (*Bellew*).	India Museum [P.].
q. Ad. sk.	Lahoul, 9000 feet (*Capt. Tweedie*).	Gould Coll.
r. ♂ ad. sk.	Ladak, July (*G. Henderson*).	Hume Coll.
s. Ad. sk.	Ladak (*Strachey*).	India Museum [P.].
t. Ad. sk.	Cashmere.	Salvin-Godman Coll.
u. ♀ ad. sk.	Cashmere, June (*J. Biddulph*).	Tweeddale Coll.
v. ♀ ad. sk.	Gilgit, Dec.	J. Biddulph, Esq. [C.].
w, *x*. ♀ ad. sk.	Gilgit, Feb., April (*J. Biddulph*).	Hume Coll.
y. Ad. sk.	Gilgit, Nov. (*J. Scully*).	Seebohm Coll.
z. Ad. sk.	Sikhim.	Hume Coll.
a'. ♂ ad. sk.	Darjeeling.	Seebohm Coll.
b'-*s'*. ♂ ♀ ad. sk.	Thibet, March to June, Aug. to Nov. (*L. Mandelli*).	Hume Coll.
t', *u'*. Ad. sk.	Thibet.	Seebohm Coll.
v'. ♂ ad. sk.	Haidji-Gol, N. Thibet (*Prjevalsky*).	Seebohm Coll.
w'. ♂ ad. sk.	Alaschan, March (*Prjevalsky*).	Seebohm Coll.
x'. Ad. sk.	Peking, Aug. (*R. Swinhoe*).	Hume Coll.
y'. Juv. sk.	Peking, Aug. (*R. Swinhoe*).	Seebohm Coll.
z', *a''*. Ad. et ♀ juv. sk.	Chefoo, June (*R. Swinhoe*).	Seebohm Coll.
b''. ♂ ad. sk.	Chefoo, June (*R. Swinhoe*).	Hume Coll.
c''. ♂ ad. sk.	Talienwan, July (*R. Swinhoe*).	Seebohm Coll. (Type of *C. leucozonura*, Swinh.)
d''. Ad. sk.	Hwailai Hien, China.	R. Swinhoe, Esq. [C.].
e'', *f''*. ♀ ad. sk.	Soul, Corea, Dec.	C. W. Campbell, Esq. [P.].

4. Columba livia.

Columba domestica, *Briss. Orn.* i. p. 68 (1760).
Columba livia, *Briss. Orn.* i. p. 82 (1760).
Columba saxatilis, *Briss. Orn.* i. p. 84 (1760); *Gm. S. N.* i. p. 769 (1788) (*ex Brisson*).
Columba œnas, *Linn. S. N.* i. p. 279, n. 1 (part.) (1766) (nec 1758); *Pall. Zoogr. Rosso-As.* i. p. 559 (part. var. *a*, *β*, *γ*) (1811).
Columba œnas, *β*. domestica, *Linn. S. N.* i. p. 279 (1766).
Biset, *D'Aubent. Pl. Enl.* 510; *Buff. Hist. Nat. Ois.* ii. p. 498 (1771).
White-rumped Pigeon, *Lath. Syn.* ii. 2, p. 605, n. 2, with var. A (1783).
Columba domestica*, *Gm. S. N.* i. p. 769, n. 2 (1788); *Lath. Ind.*

* *C. domestica*, Gm., applies to the Pigeon in the domestic state.

Orn. ii. p. 589, n. 2 (1790); *Brehm, Isis*, 1828, p. 139; *Less. Compl. de Buff., Ois.* viii. p. 103 (1837); *id. op. cit.* 2nd ed. p. 297 (1838).

Columba domestica, β. livia, *Gm. S. N.* i. p. 769 (1788); *Lath. Ind. Orn.* ii. p. 590 (1790).

? Columba domestica, γ. rupicola, *Lath. Ind. Orn.* ii. p. 590 (1790).

Columba livia, *Bonn. Encycl. Méth.* i. p. 227 (1790); *Temm. & Knip, Pig.* i. fam. seconde, p. 27, pl. 12 (1808-1813); *Temm. Hist. Nat. Pig. et Gallin.* i. pp. 125, 451 (1813); *Cuv. Règn. An.* i. p. 456 (1817); *Vieill. N. D.* xxvi. p. 291 (1818); *Steph. Gen. Zool.* xi. 1, p. 27 (1819); *Temm. Man. d'Orn.* ii. p. 446 (1820); *Desm. Dict. Sc. Nat.* xl. p. 324 (1826); *Wagl. Syst. Av.* Columba, sp. 44 (1827); *Brehm, Isis*, 1828, p. 139; *Wagl. Isis*, 1829, p. 744; *Cuv. Règn. An.* 2nd ed. i. p. 490 (1829); *Savi, Orn. Tosc.* iii. p. 227 (1831); *Less. Tr. d'Orn.* p. 468 (Teneriffe, France) (1831); *Naum. Vög. Deutschl.* vi. p. 186, t. 150 (1833); *Selb. Natural. Libr., Pigeons*, p. 146, pl. 12 (1835); *Gould, B. of Eur.* pl. 245 (1837); *Less. Compl. de Buff., Ois.* viii. p. 103 (1837); *id. op. cit.* 2nd ed. p. 297 (1838); *Keys. & Blas. Wirbelth. Eur.* pp. lxii, 198 (1840); *Webb & Berth. Orn. Can.* p. 27 (1841); *Gulliv. P. Z. S.* 1842, p. 99; *G. R. Gr. Gen. B.* ii. p. 470, n. 3 (1844); *Hartl. Syst. Verz.* p. 98 (1844); *Blyth, J. A. S. B.* xiv. p. 861 (1845); *id. Ann. & Mag. N. H.* xix. p. 102 (1847); *Rchnb. Syn. Av.* ff. 1244–46 (1847); *Vern. Harc. P. Z. S.* 1851, p. 142 (Madeira); *Wallengr. Naumannia*, 1854, p. 243 (Norway); *Bp. Consp. Av.* ii. p. 47 (1854); *id. Compt. Rend.* xxxix. p. 1106 (1854), xl. p. 218, n. 132 (1855); *id. Coup d'œil Ordre Pig.* pp. 22, 56, n. 132 (1855); *Bolle, J. f. O.* 1855, p. 172; *Vern. Harc. Ann. & Mag. N. H.* (2) iv. p. 437 (1855); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 28 (1856); *Sundev. Svenska Foglarna*, p. 167, pl. xxi. f. 1 (1856); *Loche, Expl. Sc. Algér., Ois.* ii. p. 110 (1857); *Bolle, J. f. O.* 1857, p. 330 (Canaries); ? *Tristr. Ibis*, 1859, p. 35 (Palestine); *Salv. Ibis*, 1859, p. 318 (E. Atlas); *Tristr. Ibis*, 1860, p. 68 (Algeria); *Powys, Ibis*, 1860, p. 236 (Albania, Epirus, Corfu); *Hartl. J. f. O.* 1861, p. 266; *Rchnb. Tauben*, i. p. 55, t. 220. ff. 1244–46 (1862); *Parker, P. Z. S.* 1863, p. 516; *Tristr. P. Z. S.* 1864, p. 448 (Palestine); ? *Adams, Ibis*, 1864, p. 26 (Egypt); *Wright, Ibis*, 1864, p. 137 (Malta); *Sperl. Ibis*, 1864, p. 283; *More, Ibis*, 1865, p. 141; *Godman, Ibis*, 1866, pp. 99, 107 (Azores, var.); *De Filippi, Viaggio in Pers.* p. 350 (1865); *Degl. & Gerbe, Orn. Eur.* ii. p. 9 (1867); *Chambers, Ibis*, 1867, p. 101 (Tripoli); *Drake, Ibis*, 1867, p. 428 (E. Morocco); *Darwin, Anim. & Plants under Domestic.* i. pp. 131–224 (diff. races) (1868); *Tristr. Ibis*, 1868, p. 209 (Palestine); *Smith, Ibis*, 1868, p. 450 (Portugal); *Saund. Ibis*, 1869, pp. 176, 394; *Melliss, Ibis*, 1870, p. 102 (St. Helena); ? *Elwes & Buckl. Ibis*, 1870, p. 201 (Sebastopol); *Selys, Ibis*, 1870, p. 454; *Tacz. J. f. O.* 1870, p. 51 (Constantine); ? *Swinh. P. Z. S.* 1870, p. 444 (China); *Gould, B. Great Brit.* iv. pl. 3 (part xviii., 1870); *G. R. Gr. Hand-list*, ii. p. 232, n. 9231 (1870); *Fritsch, Vög. Eur.* Taf. 29. f. 10 (1871); *Saund. Ibis*, 1871, p. 223; *Gurn. Ibis*, 1871, p. 295 (Algeria); *Swinh. P. Z. S.* 1871, p. 396; *Dohrn, J. f. O.* 1871, p. 7 (Cape Verd Isl.); *Heugl. Orn. N.O.-Afr.* i. 2, p. 828 (part.) (1871); *Shell. B. of Egypt*, p. 211 (1872); *Godm. Ibis*, 1872, p. 218 (Canaries, Madeira, and Azores, var.); *Hume, Ibis*, 1872, p. 468 (Scinde); *Gieb. Thes. Orn.* i. p. 746 (1872); *Salvad. Fauna d'Ital., Ucc.* p. 178 (1872); *Brooke, Ibis*, 1873, p. 335;

Garrod, P. Z. S. 1873, pp. 35 (fig. of the skull), 408, 639; *Sousa, Mus. Nac. Lisb.* Columbæ, p. 13 (1873); *Schleg. Mus. P.-B.* Columbæ, p. 63 (part.) (1873); *Hume, Str. Feath.* i. p. 218 (India) (1873); *Severtz. Turkest. Jevotn.* p. 68 (1873); *Garrod, P. Z. S.* 1874, p. 255 (fig. of the right humerus); *Wharton, Ibis*, 1876, p. 26 (Corsica); *Dress. Ibis*, 1876, p. 321; *Blanf. East. Pers.* ii. p. 268 (1876); ? *Hartl. Vögel Madag.* p. 266 (1877); *Forbes, P. Z. S.* 1877, pp. 306, 312; *Danf. Ibis*, 1878, p. 24 (Asia Minor); *Cripps, Str. Feath.* vii. p. 296 (E. Bengal) (1878); ? *Tacz. P. Z. S.* 1879, p. 673 (Turkestan); *Dress. B. of Eur.* vii. p. 11 (part.), pl. 457, upper fig. (1879); *Hume, Str. Feath.* viii. p. 109 (1879); *Danf. Ibis*, 1880, p. 88 (Asia Minor); *Bidd. Ibis*, 1881, p. 94 (Gilgit); *Scully, l. c.* p. 584; *C. Swinh. Ibis*, 1882, p. 117; *Gadow, P. Z. S.* 1882, pp. 314, 327; *Dixon, Ibis*, 1882, p. 577; *Salv. Cat. B. Strickl. Coll.* p. 544 (1882); *Saund. Yarr. Brit. B.* iii. p. 13 1882; *Seebh. Ibis*, 1883, p. 25 (Caucasus); *Sclat. List Vert. An.* 8th ed. p. 446 (1883); *Shell. Ibis*, 1883, p. 274 (part.); *B. O. U. List Brit. B.* p. 139 (1883); *Bogd. Consp. Av. Imp. Ross.* fasc. i. p. 1 (1884); *Tristr. Fauna & Flor. of Palest.* p. 119 (1884); *Whiteh. Ibis*, 1885, p. 41 (Corsica); *Dixon, ibid.* p. 84; *Reid, ibid.* p. 251; *Meyer, Abbild. Vogel-Skel.* t. xc. (1885); *Johns. Madeira, its Climate, etc.* p. 195 (1885); *Hartw. J. f. O.* 1876, p. 483 (dark variety, Madeira); *Tait, Ibis*, 1887, p. 378; *Radde, Ornis*, iii. p. 492 (1887); *Salvad. Elenco Ucc. Ital.* p. 191 (1887); *Koenig, J. f. O.* 1888, n. 251 (Tunis); *St. John, Ibis*, 1889, p. 173; *Lilf. ibid.* p. 332; *Meade-Waldo, Ibis*, 1889, p. 509 (Las Palmas); *Tristr. Cat. Coll. B.* p. 37 (1889); *Koenig, J. f. O.* 1890, pp. 312, 447; *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 275 (1890); *Seebh. Ibis*, 1890, p. 409; *Turle, Ibis*, 1891, p. 6; *Evans, Ibis*, 1891, p. 73; *Lydekk. Ibis*, 1891, p. 391 (fossil); *Hartert, Kat. Vogelsamml.* p. 185 (1891); *Sharpe, Sc. Res. Sec. Yark. Miss., Aves*, p. 115 (1891).

Columba œnas, *a.* Vinago spontanea, *Pall.* (*ex Willughby*), *Zoogr. Rosso-As.* i. p. 559, n. 172 (1811).

Columba domestica fera, *Nilss. Orn. Suec.* i. p. 296 (1817).

Columba amaliæ, *Brehm, Isis*, 1828, p. 139 (Islands of Northern Seas); *Wagl. Isis*, 1829, p. 744 (=livia); *Brehm, Vög. Deutschl.* p. 491 (1831); *id. Vogelf.* p. 256 (1855); *id. Naumannia*, 1856, p. 286; *Saund. Yarr. Brit. B.* iii. p. 15, note (1882).

Columba ameliæ, *Less. Compl. de Buff., Ois.* viii. p. 104 (1837); *id. op. cit.* p. 298 (1838).

Columba affinis, *Blyth, J. A. S. B.* xiv. p. 862, note (1845) (var. South of England); *id. Ann. & Mag. N. H.* xix. p. 102, note (1847); *Sundev. Svenska Foglarna*, p. 168 (1856); *Rchnb. Tauben*, i. p. 57, t. 221. f. 1248 (1862); *Saunders, Yarr. Brit. B.* iii. p. 15 (1882).

Columba œnas, part., *Rchnb. Syn. Av.* f. 1248 (1847); *Sclat. & Salv.* (*nec Linn.*) *P. Z. S.* 1878, p. 437 (Juan Fernandez); *iid. Voy. Challeng., Birds*, p. 108 (1881).

Lithœnas livia, *Rchnb. Av. Syst. Nat.* p. xxv (1852).

? Columba selbyi, *Rchnb. Tauben*, i. p. 56 (*ex Selby, Pig.* p. 146, pl. 12, England) (1862), ii. p. 196, *Novit. Suppl.* t. ii. f. 13 (1862).

Columba rupestris, *Brehm* (*nec Pall.*), *Vogelf.* p. 256 (1855).

Columba elegans, *Brehm, Vogelf.* p. 256 (1855); *id. Naturg. u. Zucht d. Taub.* 93; *Rchnb. Tauben*, ii. p. 169 (1862).

Columba glauconotus, *Brehm, Vogelf.* p. 256 (1855); *id. Naturg. u. Zucht d. Taub.* 91; *Rchnb. Tauben*, ii. p. 169 (1862).

Columba unicolor, *Brehm, Vogelfang*, p. 256 (Nubia) (1855); *id. Naturg. u. Zucht. d. Taub.* 95; *Rchnb. Tauben*, ii. p. 169 (1862).
Columba dubia, *Brehm, Vogelfang*, p. 256 (1855).
Columba plumipes, *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 29 (Persia) (1856) (var. semidom.? descr. nulla); *Bp. Compt. Rend.* xliii. p. 838 (1856).
Palumbus livia, *Heugl. Syst. Uebers.* p. 49 (1856).
Columba neglecta, *Hume, Lahore to Yark.* p. 272 (1873); *id. Str. Feath.* i. p. 218 (=livia) (1873); *Severtz. J. f. O.* 1875, pp. 187, 194, 195, 196, 198; *id. Str. Feath.* iii. p. 430 (1875).
Columba spelæa, *Hutt. in litt.*; *Hume, Lahore to Yark.* p. 273 (hybrid of *C. neglecta* and *C. intermedia*) (1873).
Columba livia, *a.* fera, *Bogdanow, Tr. Sib. Obtsch. Jestestv.* xii. p. 98 (1881).
Columba livia, *β.* rustica, *Bogd. l. c.*
Columba livia fera, *Bogd. Consp. Av. Imp. Ross.* fasc. i. p. 1 (1884).
Columba livia rustica, *Bogd. Consp. Av. Imp. Ross.* fasc. i. p. 2 (1884).
Columba livia domestica, *Bogd. op. cit.*
Columba domestica, *Stejn. Pr. U.S. Nat. Mus.* x. p. 424 (1887) *.
Columba livia, var. neglecta, *Pleske, Mém. Ac. Pétersb.* (7) xxxvi. n. 3, p. 44 (Turkestan) (1888).

Adult male. Head slate-grey; neck metallic green, changing into purple on the lower part, especially on the upper breast; upper back, scapulars, and wing-coverts pale grey; rump white; upper tail-coverts dark grey; wings with two black cross bars—one subterminal on the greater wing-coverts, and the other formed by the tips of the outer secondaries, and becoming subterminal so on the inner ones or tertials; quills and primary-coverts blackish grey; lower parts slate-grey, darker on the breast, and still more so on the under tail-coverts, paler on the abdomen; under wing-coverts white; tail slate-grey, with a broad apical black band, and with the outer feathers white at the base of the outer web: iris orange-red; bill vinous slate-colour, inclining to white on the cere; legs red. Total length 11 inches, wing 8·7, tail 4·6, bill 0·79, tarsus 1·2.

Female. Like the male, but somewhat smaller.

Young. Duller in coloration, and having the black bands on the wing less clearly defined, and with but little of the green gloss on the neck.

Hab. Western Palæarctic region, and also Sindh, Cashmere, and some parts of India.

Four of the birds mentioned below—one from Madeira, one from Tunis, and two from Juan Fernandez—instead of having the rump white, have it grey, and they cannot be distinguished from *C. intermedia*. They suggest to me the idea that *C. livia* with the white rump is a higher form than *C. intermedia* with the grey rump; and

* I cannot agree with Dr. Stejneger as regards Gmelin's name (ex Brisson) *C. domestica* (which refers to the bird in a *domestic* state) being used for the *wild* Rock-Dove.

some specimens of the former occasionally show signs of atavism, having the rump grey like the latter. Every ornithologist knows the difficulty of drawing the exact line between *C. livia* and *C. intermedia* *.

a, *b*. ♂ ad. et imm. sk.	Faeroe Isl., May, Sept. (*Müller*).	Hargitt Coll.
c. Ad. sk.	Shetland Islands.	C. Darwin, Esq. [P.].
d. Ad. sk.	Orkney Islands.	Gould Coll.
e. Ad. sk.	Orkney Islands.	Hume Coll.
f. ♀ ad. sk. [var.].	Orkney Islands (*J. H. Dunn*).	Hargitt Coll.
g. ♀ ad. sk.	Tiree, N.W. Scotland, Aug.	Colonel Irby [P.].
h. Juv. st.	N. Uist.	Theodore Walker, Esq. [P.].
i–*p*. ♂ ♀ ad. et juv. sk.	Cromarty, Oct.	G. J. Romanes, Esq. [P.].
q. Ad. sk.	England.	Hume Coll.
r, *s*. Pull. st.	England.	J. Baker, Esq. [P.].
t. Ad. sk. [var.].	England.	C. Darwin, Esq. [P.].
u, *v*, *w*. Ad. st. [var.].	Cambridgeshire.	J. Baker, Esq. [P.].
x, *y*. Ad. sk. et ad. [var.].	Caermarthen.	Montagu Coll.
z, *a'*. Ad. sk.	Denmark, May (*A. Benzon*).	Tweeddale Coll.
b', *c'*. ♂ ♀ ad. sk.	Pagania, Bulgaria, Nov. (*H. Barclay*).	Tweeddale Coll.
d'. ♂ ad. sk. [var.].	Coroo, Azores, May (*F. D. G.*).	Salvin-Godman Coll.
e'–*g'*. ♂ ad. et ad. sk. [vars.].	St. Michaels, Azores, April (*F. D. G.*).	Salvin-Godman Coll.
h'–*l'*. Ad. sk. et ad. sk. [var.].	Madeira.	C. Darwin, Esq. [P.].
m'. Ad. sk. [var.].	Madeira.	W. Saunders, Esq. [P.].
n'. ♂ ad. sk.	Teneriffe, March (*F. D. G.*).	Salvin-Godman Coll.
o'. Ad. sk.	Cape Verd Islands.	A. Bouvier [C.].
p', *q'*, *r'*. Ad. sk. et ad. st. & sk. [vars.].	Sierra Leone.	C. Darwin, Esq. [P.].

* Columba turricola.

Columba œnadi affinis, *Pall. Zoogr. Ross.-As.* p. 563 (Persia) (1811).

Columba livia, *Savi, Orn. Tosc.* ii. p. 160, with figure (1829) (nec iii. p. 227, 1831).

Columba turricola, *Bp. Consp. Av.* ii. p. 47 (1854) (Italy and Persia); *id. Compt. Rend.* xxxix. p. 1107 (Italy and Persia) (1854), xl. p. 218, n. 133 (1855); *id. Coup d'œil Ordre Pig.* pp. 23, 56, n. 133 (1855); *Sundev. Svenska Foglarna*, p. 168 (1856); *Rchnb. Tauben*, i. p. 57 (1862); ? *Tristr. Ibis*, 1868, pp. 209, 210 (Palestine); *G. R. Gr. Hand-list*, ii. p. 232, n. 9237 (1870); *Selys-Longchamps, Ibis*, 1870, pp. 453, 454; *Salvad. Faun. d'Ital., Uce.* p. 179 (1872); *Saund. Yarr. Brit. B.* iii. p. 15 (1882); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 275 (1890).

Similar to *C. livia*, but with grey rump, darker than in *C. schimperi*.

The above synonymy and description most probably refer to a mere variety of half-bred *C. livia*, with grey rump.

s'. ♂ ad. sk.	Tunis, Feb (*O. Salvin*).	Salvin-Godman Coll.
t'. Ad. sk.	Bizerta, Feb. (*P. L. Sclater*).	Tweeddale Coll.
u'. Ad. sk. [var.].	Abyssinia ?	Zoological Soc. Coll.
v'. Juv. sk.	Cyprus, July (*W. Schlüter*).	Seebohm Coll.
w'. Ad. sk.	Asia Minor, Feb. (*C. G. Danford*).	Seebohm Coll.
x'. Ad. sk.	Mesopotamia.	
y'. ♀ ad. sk.	Road to Jericho.	Canon Tristram [P.].
z'. Ad. sk.	Palestine, Jan. (*H. B. Tristram*).	Salvin-Godman Coll.
a'', *b''*. Ad. st. et sk. [var. dom.?].	Dizful, Persia.	Kenneth Loftus, Esq. [P.]. (Types of *C. plumipes*, Gr. *)
c''. ♂ ad. sk.	Kandahar, Jan.	Lt.-Col. Swinhoe [P.].
d''. ♂ ad. sk.	Gilgit, Feb. (*J. Biddulph*).	Hume Coll.
e'', *f''*. Ad. sk.	Sehwan, Jan. (*A. O. H.*).	Hume Coll.
g''. ♀ ad. sk.	Ladak, Oct. (*G. Henderson*).	Hume Coll.
h'', *i''*. Ad. sk.	Ladak (*Strachey*).	India Museum [P.].
k''. Ad. sk.	Cashmere, July.	Hume Coll.
l''. ♀ ad. sk.	Sindh, Nov.	Hume Coll.
m''. ♂ ad. sk.	Faridpur, June (*J. R. Cripps*).	Hume Coll.
n''. ♀ ad. sk.	Hwailai Hein, China, Sept. (*R. Swinhoe*).	Seebohm Coll.
o''. Ad. sk. [var.].	Java.	Tweeddale Coll.
p'', *q''*. Ad. var.	Juan Fernandez.	'Challenger' Exp.
r''. Skeleton.	Shetland Islands.	Darwin Coll.

5. Columba gymnocyclus.

Columba livia, part., *Licht. Nomencl. Av.* p. 81 (1854); *Hartl. J. f. O.* 1854, p. 205 (Senegal, Mus. Berol.); *id. Syst. Orn. W.-Afr.* p. 193 (1857).

Columba gymnocyclus, *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 28, specim. *a*, *b*, *c*. (1856); *Bp. Compt. Rend.* xliii. pp. 838, 948 (1856); *id. Cat. Parzud.* p. 19, sp. 40 (1856); *Sundev. Svenska Foglarna*, p. 168 (1856); *Loche, Expl. Sc. Algér.* ii. p. 112 (1857); *Hartl. Syst. Orn. W.-Afr.* p. 193 (1857); *id. J. f. O.* 1861, p. 266 (good species); *Rchnb. Tauben*, i. p. 57 (1862); *G. R. Gr. Hand-list*, ii. p. 232, n. 9232 (1870); *Saund. Yarr. Brit. B.* iii. p. 15(1882).

Columba senegalensis [*Bp.*], *Mus. Ber.*; *id. Compt. Rend.* xliii. p. 948 (1856); "*Licht.*" *fide Rchnb. Tauben*, p. 57 (1862).

? Columba livia, var. schimperi, *Oust.* (*nec Bp.*) *Nour. Arch. Mus.* (2) ii. p. 156 (1879) (Loss Islands); *Hartl. J. f. O.* 1879, p. 189.

Similar to *C. livia*, but the general plumage dark bluish slate-colour; rump white; wings and tail-bands as in *C. livia*; head with purple lustre; naked space round the eyes very broad; neck and crop-region metallic green, more or less with purple reflections; inner under wing-coverts white; bill black; feet probably red. Total length 12 inches, wing 8·5, tail 4·5, bill 0·78, tarsus 1·1.

Hab. Senegal.

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* Tarsus thinly feathered in front; evidently a half-bred domestic variety.

The absolute uniformity of the three specimens mentioned below leads me to believe that they belong to a definite form, but Mr. Saunders says "perhaps a domestic pigeon which has become feral."

a, *b*. Ad. sk. et st.	W. Africa.	Zool. Soc. Coll. (Types of species.)
c. Ad. sk.	——?	Gould Coll.

6. Columba schimperi.

Columba œnas, *Savigny* (*nec Linn.*), *Descr. de l'Egypte*, p. 290, pl. 13 f. 7 (1825).

? Columba livia, part., *Rüpp. Syst. Uebers.* p. 100, n. 361 (Egypt) (1845); *Tristr. Ibis*, 1859, p. 351 (S. Palestine); *Heugl. Orn. N.O.-Afr.* i. 2, p. 828 (1871); *Shell. Ibis*, 1883, p. 274.

Columba schimperi, *Bp. Consp. Av.* ii. p. 48 (Abyssinia!) (1854); *id. Compt. Rend.* xxxix. p. 1107 (Abyssinia!) (1854), xl. p. 218, n. 136 (1855); *id. Coup d'œil Ordre Pig.* pp. 23, 56, n. 136 (1855); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 29 (1856); *Sundev. Svenska Foglarna*, p. 169 (1856); *Taylor, Ibis*, 1859, p. 49 (Egypt); *Rchnb. Tauben*, i. p. 57, ii. p. 170, t. ii. ff. 15, 16 (1862); ? *Maillard, Not. Ile Réunion*, p. 163 (1862); ? *Pollen, N. T. D.* i. p. 318 (1863) (Madagascar); *Adams, Ibis*, 1864, p. 26; *Tristr. P. Z. S.* 1864, p. 448 (Palestine & Egypt); *Taylor, Ibis*, 1867, p. 66 (Egypt); *Tristr. Ibis*, 1868, pp. 209, 210 (Palestine); *Schleg. & Poll. Faune Madag.* p. 155 (1868); *Wyatt, Ibis*, 1870, pp. 2, 6, 16 (Palestine); *G. R. Gr. Hand-list*, ii. p. 232, n. 9233 (1870); *Shell. Ibis*, 1871, p. 142; ? *Gurn. Ibis*, 1871, p. 295; *Shell. B. of Egypt*, p. 212 (1872); *Saund. Yarr. Brit. B.* iii. p. 16 (1882); *Shell. Ibis*, 1883, p. 273 (var. of *C. livia*); *Tristr. Fauna & Flora of Palest.* p. 120 (1884); *id. Cat. Coll. B.* p. 38 (Palestine) (1889); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 275 (1890).

? Columba rupestris, *Müll.* (*nec Pall.*) *Beitr. Orn.* t. 17.

Columba turricola, *Tristr.* (*nec Bp.*) *Ibis*, 1862, p. 279 (Jericho); ? *Loche, Expl. Sc. Algér.* ii. p. 111 (1867).

Columba livia, var. schimperi, *Heugl. Orn. N.O.-Afr.* ii. 2, p. clxix (1875).

Columba livia schimperi, *Hartert, Kat. Vogelsamml.* p. 186, n. 2800 (Egypt) (1891)*.

Similar to *C. livia*, but lighter, and with the rump light grey, like the back, instead of white.

Hab. Egypt, Nubia, and Palestine.

a. Ad. sk.	E. Africa.	Verreaux Coll.
b. Ad. sk.	Wadie Halbel, Nubia.	Dr. Adams [P.].
c. Ad. sk. [var.].	Egypt (*Powis*).	Shelley Coll.
d. Ad. sk.	Wady Hamam, Gennesareth.	H. B. Tristram [C.].
e. ♂ ad. sk.	Mesopotamia.	India Museum [P.].

* Mr. Hartert rightly notices that *C. schimperi* is not from Abyssinia, but from Egypt.

7. Columba intermedia.

Columba œnas, *Sykes* (*nec Linn.*), *P. Z. S.* 1832, p. 150, n. 144 (Dukhun); *Jerd. Madr. Journ.* xii. p. 14 (1840); ? *Beng. Sport. Rev.* 1845, pl. iv.; *Rchnb. Syn. Av.* f. 1249 (1847); *Burgess, P. Z. S.* 1855, p. 34.

Columba intermedia, *Strickl. Ann. & Mag. N. H.* xiii. p. 39 (India) (1844); *G. R. Gr. Gen. B.* ii. p. 470, n. 4 (1844); *Blyth, J. A. S. B.* xiv. p. 861 (1845); *id. Ann. & Mag. N. H.* xix. p. 102 (1847); *Kelaart, Prodr. Cat.* p. 130 (1852); *Layard, Ann. & Mag. N. H.* (2) xiv. p. 59 (1854); *Bp. Consp. Av.* ii. p. 48 (1854); *id. Compt. Rend.* xxxix. p. 1107 (1854), xl. p. 218, n. 135 (1855); *id. Coup d'œil Ordre Pig.* pp. 23, 56, n. 135 (1855); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 29 (1856); *Sundev. Svenska Foglarna*, p. 168 (1856); *Gould, P. Z. S.* 1859, p. 151 (Siam); *Rchnb. Tauben*, i. p. 57, t. 221. f. 1249 (1862); *Cass. Pr. Ac. Nat. Sc. Philad.* 1862, p. 320 (Loo-Choo Islands); *Dunn, P. Z. S.* 1863, p. 371; *Jerd. B. of Ind.* iii. p. 469 (1864); *Schomb. Ibis*, 1864, p. 250 (Siam); *Blyth, Ibis*, 1867, p. 149; *Tytler, Ibis*, 1868, p. 202; ? *Pelz. Ibis*, 1868, p. 320 (Kotegurh, Pangi); *Selys, Ibis*, 1870, p. 454; *G. R. Gr. Hand-list*, ii. p. 232, n. 9234 (1870) *; *Swinh. P. Z. S.* 1870, p. 444 †; *Holdsw. P. Z. S.* 1872, p. 467; *Gieb. Thes. Orn.* i. p. 744 (1872); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 13 (1873); *Hayes Lloyd, Ibis*, 1873, p. 414; *Hume, Str. Feath.* i. p. 217 (1873); *Ball, Str. Feath.* ii. p. 424 (1874), iii. p. 208 (Suliman Hills) (1875); *Hume, Nests & Eggs*, iii. p. 499 (1875); *Legge, Ibis*, 1875, p. 400 (Ceylon); *Butler, Str. Feath.* iv. p. 3 (1876); *Fairb. op. cit.* p. 262 (1876); *Dress. Ibis*, 1876, p. 321; *Blanf. East. Persia*, ii. p. 268 (S. Persia) (1876); *David & Oust. Ois. Chine*, p. 384 (1877); *Hume, Str. Feath.* vi. p. 419 (1878); *Davids. & Wend. Str. Feath.* vii. p. 86 (Deccan) (1878); *Ball, tom. cit.* p. 224 (1878); *Cripps, tom. cit.* p. 296 (1878); *Tiraut, Bull. Com. Agr. Ind. Cochinch.* i. p. 142, n. 253 (1879); ? *Wardl. Rams. Ibis*, 1879, p. 448 (Afghanistan); *Hume, Str. Feath.* viii. p. 109 (1879); *Legge, B. of Ceyl.* p. 698 (1880); *Bidd. Ibis*, 1881, p. 91 (Gilgit); *C. Swinh. Ibis*, 1882, p. 117; *Salv. Cat. B. Strickl. Coll.* p. 544 (1882); *Saund. Yarr. Brit. B.* iii. p. 16 (1882); *Sharpe in Gould's B. of As.* vi. pl. 56 (pt. xxxiv., 1883); *Oates, B. of Burm.* ii. p. 288 (1883); *Marsh. Ibis*, 1884, p. 421 (Chamba); *C. Swinh. & Barn. Ibis*, 1885, p. 130; *Parker, Ibis*, 1886, p. 187 (Ceylon); *Scully, J. A. S. B.* vi. p. 86 (1887); *Seebh. Ibis*, 1887, p. 182; *Stejneg. Zeitschr. ges Orn.* 1887, p. 170; *id. Pr. U.S. Nat. Mus.* x. pp. 415, 424 (1887); *Hume, Str. Feath.* xi. p. 297 (1888) (W. Sylhet); *Cord. Ibis*, 1888, p. 220 (Cashmere); *Pleske, Mém. Ac. Pétersb.* (7) xxxvi. n. 3, p. 45 (1888); *St. John, Ibis*, 1889, p. 173; *Hartert, J. f. O.* 1889, p. 439; *Tristr. Cat. Coll. B.* p. 37 (1889); *Sharpe, Sc. Res. Sec. Yark. Miss., Aves*, p. 115 (1891).

Columba livia, part., *Blyth, Cat. B. Mus. A. S. B.* p. 233 (var. p. 234) (1849); *Adams* (*nec Linn.*), *P. Z. S.* 1858, p. 497, 1859, p. 187 (part.); *Rchnb. Tauben*, ii. p. 168 (part.) (1862); *David, N. Arch. du Mus. Bull.* vii. Cat. n. 338 (1871); *Schleg. Mus. P.-B.* Columbæ,

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* The specific names *œnadis*, Reich., and *œnea*, Jerd., given by G. R. Gray in the synonymy, are wrong.

† Swinhoe (P. Z. S. 1870, p. 444, 1871, p. 396) mentions also *C. livia* with the white rump from near Pekin.

p. 63 (part.), p. 64 (1873); *Blyth, B. of Burm.* p. 145 (1875); *Blakist. & Pryer, Ibis*, 1878, p. 227; *iid. Tr. As. Soc. Jap.* viii. p. 204 (1880), x. p. 128 (1882); *Blak. Amend. List B. Jap.* p. 43 (1884); *Seebh. Ibis*, 1884, p. 179; *id. B. Jap. Emp.* p. 160 (1890).
Columba livia, var. cyanotus, *Severtz. Turk. Jevotn.* p. 68 (1873); *id. Str. Feath.* iii. p. 430 (1875) (= intermedia); *id. J. f. O.* 1875, p. 180.
Columba cyanotus, *Severtz. J. f. O.* 1873, p. 324.

Similar to *C. livia*, but with the rump slate-blue, like the back: "legs and feet crimson-red; bill dusky, cere and base of lower mandible whitish; irides orange-yellow" (*A. O. Hume*).

Hab. From Southern Persia, through India and Ceylon, to China and Japan.

a. Ad. sk.	Kashgar, Feb. (*F. Stoliczka*).	India Museum [P.].
b. Imm. sk.	Kashgar (*Bellew*).	India Museum [P.].
c. Juv. sk.	Chimray, Sept. (*F. Stoliczka*).	India Museum [P.].
d. Ad. sk.	Dras, Aug. (*F. Stoliczka*).	India Museum [P.].
e. Ad. sk.	Ladak (*Strachey*).	India Museum [P.].
f. Ad. sk. [var.].	Khorasa.	India Museum [P.].
g. Juv. sk.	Kandahar, Jan. (*Sir O. St. John*).	Hume Coll.
h, i. ♂ ad. sk.	Kandahar, March, Dec.	Lt.-Col. Swinhoe [P.].
k, l. ♂ ad. et ad. sk.	Nal, May.	Hume Coll.
m, n. ♂ ♀ ad. sk.	Pishiri Valley, Dec.	Hume Coll.
o, p, q. ♂ ♀ ad. sk.	Schwan, Sindh, Jan.	Hume Coll.
r, s. ♂ ♀ ad. sk.	Sukkur, Sindh, Dec.	Hume Coll.
t, u, v. ♂ ♀ ad. sk.	Sambhur, April, Dec. (*R. M. Adam*).	Hume Coll.
w, x. ♂ ♀ ad. sk.	Ajmere, Jan., Nov. (*A. O. H.*).	Hume Coll.
y, z. ♂ ♀ ad. sk.	Delhi, Oct. (*C. T. Bingham*).	Hume Coll.
a'. Ad. sk.	Sirsa, Punjaub, Nov. (*A. O. H.*).	Hume Coll.
b', c'. Ad. et ad. sk. [var.].	Cashmere, Aug.	Hume Coll.
d'. ♂ ad. sk. [var.].	Valley of Aster, Cashmere.	Salvin-Godman Coll.
e'. ♂ juv. sk.	Yassin, Sept. (*J. Biddulph*).	Tweeddale Coll.
f'. ♀ ad. sk.	Gilgit, Feb.	J. Biddulph, Esq. [C.].
g'. ♀ ad. sk.	Gilgit, July (*J. Biddulph*).	Tweeddale Coll.
h'. ♀ ad. sk.	Gilgit, Feb.	Hume Coll.
i'. ♂ ad. sk.	Lower Hazara, Feb. (*W. H. Unwin*).	Hume Coll.
k'–n'. Ad. sk.	Koteghur, Simla, Dec.	Hume Coll.
o'–s'. Ad. sk. [vars.].	Koteghur, Simla, Feb., March.	Hume Coll.
t'. Ad. sk.	Kooloo (*Capt. Tweedie*).	Gould Coll.
u', v', w'. Ad. sk.	Bussahir, Feb.	Hume Coll.
x', y'. ♂ sk. [var.].	Simla, Oct., Nov.	Hume Coll.
z'. ♂ ad. sk.	Umballah, Nov. (*R. C. Beavan*).	Tweeddale Coll.

a'. Ad. sk.	N. of Mussooree.	Hume Coll.
b'', *c''*. Ad. et juv. sk.	Kumaon (*Strachey*).	India Museum [P.].
d'', *e''*, *f''*. ♂ ad. et ad. sk.	Etawah, Feb.	Hume Coll.
g'', *h''*. Ad. sk.	Oudh, Jan., Feb.	Hume Coll.
i''. Ad. sk.	N.W. India.	Capt. Stackhouse Pinwill [P.].
k''. ♂ ad. sk.	Futtegurh, Oct. (*A. Anderson*).	Tweeddale Coll.
l''. ♂ ad. sk.	Nepal Valley, Sept. (*J. Scully*).	Hume Coll.
m''. Ad. sk.	Katmandoo, Nepal Valley, April.	J. Scully, Esq. [P.].
n'', *o''*. Ad. sk.	India.	Gould Coll.
p''. Ad. sk.	S. India.	India Museum [P.].
q''. Ad. sk.		India Museum [P.].
r''. Ad. sk.	Saugor (*Hooper*).	India Museum [P.].
s''. ♂ ad. sk.	Raipor.	Hume Coll.
t''. ♂ ad. sk.	Ahmednugger, Nov. (*S. B. Fairbank*).	Tweeddale Coll.
u''. Ad. sk.	Vingorla Rocks, Feb.	Hume Coll.
v''. Ad. sk.	Deccan (*Burgess*).	Gould Coll.
w''–z''. Ad. et juv. sk.	Deccan (*Sykes*).	India Museum [P.].
a^3, *b*^{3}. ♂ ad. sk.	Coonoor, Oct., Nov. (*W. Davison*).	Salvin-Godman Coll.
c^3. Ad. sk.	Mysore.	Salvin-Godman Coll.
d^3, *e*^{3}. Ad. sk.	Coorg.	Tweeddale Coll.
f^3. Ad. sk.	Malabar.	Tweeddale Coll.
g^3. Ad. sk.	Madras.	India Museum [P.].
h^3. Ad. sk.	Madras.	Gould Coll.
i^3, *k*^{3}. Ad. sk. et ad. [var.].	Madras.	C. Darwin, Esq. [P.].
l^3, *m*^{3}. Ad. sk.	Siam (*Schomburgk*).	Gould Coll.
n^3. ♂ ad. sk. [var.].	Salang, Feb. (*J. Darling*).	Hume Coll.
o^3. ♂ juv. sk. [var.].	Port Blair, May (*R. J. Wimberley*).	Hume Coll.

8. Columba œnas.

Œnas *sive* Vinago, *Briss. Orn.* i. p. 86 (1760).

Columba œnas, *Linn. Faun. Suec.* p. 75 (1761); *id. S. N.* i. p. 279 (part.) (1766); *Gm. S. N.* i. 2, p. 769, n. 1 (1788); *Lath. Ind. Orn.* ii. p. 589, n. 1 (1790); *Bonn. Encycl. Méth.* i. p. 226 (1790); *Temm. & Knip, Pig.* i. fam. sec. p. 14, pl. 11 (1808–13); *Temm. Hist. Pig. et Gallin.* i. pp. 118, 451 (1813); *id. Man. d'Orn.* p. 277 (1815); *Cuv. Règn. An.* i. p. 456 (1817); *Vieill. N. D.* xxv. p. 365 (1818); *Steph. Gen. Zool.* xi. 1, p. 25, pl. 1 (1819); *Temm. Man. d'Orn.* 2nd ed. ii. p. 445 (1820); *Desm. Dict. Sc. Nat.* xl. p. 323 (1826); *Steph. Gen. Zool.* xiv. p. 280 (1826); *Wagl. Syst. Av.* Columba, sp. 45 (1827); *Savi, Orn. Tosc.* ii. p. 158 (1829); *Less. Tr. d'Orn.* p. 468 (1831); *Naum. Vög. Deutschl.* vi. p. 215, t. 151 (1833); *Selb. Nat. Libr., Pigeons*, p. 142, pl. xi. (1835); *Strickl.*

P. Z. S. 1836, p. 100 (Smyrna); *Gould, B. Eur.* iv. pl. 244 (1837); *Less. Compl. de Buff., Ois.* viii. p. 104 (1837); *id. op. cit.* 2nd ed. p. 298 (1838); ? *Fraser, P. Z. S.* 1839, p. 133 (Erzeroum); *Keys. & Blas. Wirbelth. Eur.* pp. lxii, 197 (1840); *G. R. Gr. Gen. B.* ii. p. 470, n. 1 (syn. emend.) (1844); *Hartl. Syst. Verz.* p. 98 (1844); *Rchnb. Syn. Av.* f. 1247 (1847); *Vern. Harc. P. Z. S.* 1851, p. 146 (Madeira); *Wallengr. Naumannia*, 1854, p. 243; *Bp. Consp. Av.* ii. p. 49 (1854); *id. Compt. Rend.* xxxix. p. 1107 (1854), xl. p. 218, n. 137 (1855); *id. Coup d'œil Ordre Pig.* pp. 23, 56, n. 137 (1855); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 28 (1856); *Sundev. Svenska Foglarna*, p. 167, pl. xxxi. f. 3 (1856); *Tristr. Ibis*, 1859, p. 35 (Palestine), 1860, p. 69 (Algeria); *Powys, Ibis*, 1860, p. 236; *Rchnb. Tauben*, i. p. 58, t. 221. f. 1247 (1862), ii. p. 170 (1862); *Wright, Ibis*, 1864, p. 137; *Tristr. P. Z. S.* 1864, p. 448; *More, Ibis*, 1865, p. 140; *De Filippi, Viaggio in Pers.* p. 350 (1865); *Degl. & Gerbe, Orn. Eur.* ii. p. 8 (1867); *Harting, Ibis*, 1867, p. 380; *Tristr. Ibis*, 1868, p. 209; *Smith, Ibis*, 1868, p. 450; *Tristr. P. Z. S.* 1868, p. 209 (Palestine); *Elwes & Buckl. Ibis*, 1870, p. 200; *Fritsch, Vög. Eur.* Taf. 29. f. 1 (1871); *Heugl. Orn. N.O.-Afr.* i. 2, p. 827 (1871–75); *Shell. B. of Egypt*, p. 213 (1872); *Salvad. Faun. d'Ital., Ucc.* p. 178 (1872); *Gieb. Thes. Orn.* i. p. 748 (1872); ?*Severtz. Turkest. Jevotn.* p. 68 (1873); *Brooke, Ibis*, 1873, p. 335; *Heugl. Orn. N.O.-Afr.* ii. App. p. clxviii (1875); *Gould, B. of Great Brit.* iv. pl. 2 (1873); *Garrod, P. Z. S.* 1873, pp. 468, 639; *Schleg. Mus. P.-B.* Columbæ, p. 65 (1873); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 13 (1873); *Danf. & Harvie Brown, Ibis*, 1875, p. 416; ?*Severtz. J. f. O.* 1875, p. 180 (Turkestan); ? *Dress. Ibis*, 1876, p. 321; *Seull. Str. Feath.* iv. p. 176 (1876); *Dress. B. of Eur.* vii. p. 23, pl. 458 (1876); *Danf. Ibis*, 1878, p. 27 (Asia Minor); *Dalgl. Ibis*, 1878, p. 382; *Brooke, Ibis*, 1879, p. 112 (Scotland); *Seebh. Ibis*, 1880, p. 193 (Siberia); *Salv. Cat. B. Strickl. Coll.* p. 544 (1882); *Saund. Yarr. Brit. B.* iii. p. 8 (1882); *Seebh. Ibis*, 1883, p. 25; *Sclat. List Vert. An.* 8th ed. p. 446 (1883); *Homeyer & Tancré, MT. orn. Ver. Wien*, 1883, p. 91; *Shell. Ibis*, 1883, p. 275; *Tristr. Faun. & Flor. of Palest.* p. 119 (1884); *Radde, Orn. Caucas.* p. 327 (Caucasus) (1884); *Bogd. Consp. Av. Imp. Ross.* fasc. i. p. 4 (1884); *Pleske, Uebers. Säugeth. u. Vög. Kola-Halbins.* p. 296 (1886); *Tait, Ibis*, 1887, p. 378 (Portugal); *Salvad. El. Ucc. Ital.* p. 191 (1887); *Koenig, J. f. O.* 1888, p. 251 (Tunis); *Pleske, Mém. Ac. Pétersb.* (3) xxxvi. n. 3, p. 45 (1888); *Sharpe, Tr. Linn. Soc.*, (2) *Zool.* v. p. 85 (1889); *Lilf. Ibis*, 1889, p. 332; *Tristr. Cat. Coll. B.* p. 37 (1889); *Seebh. Ibis*, 1890, p. 402; *Evans, Ibis*, 1891, p. 73; *Saund. Ibis*, 1891, p. 185; *Hartert, Kat. Vogelsamml.* p. 185 (1891); *Sharpe, Sc. Res. Sec. Yark. Miss., Aves*, p. 115 (1891).

Stock Pigeon, *Lath. Syn.* ii. 2, p. 604, n. 1 (1783); *id. Suppl.* i. p. 197 (1787).

Columba cavorum, *C. L. Brehm, Vög. Deutschl.* p. 492 (1831).

Columba livia, *Eversm.* (*nec auct.*) *Add. Pall. Zoogr.* fasc. i. p. 25 (1835).

Palumbus ænas (!), *Des Murs* (*fide Bp. Consp. Av.* ii. p. 49, 1854; *id. Compt. Rend.* xxxix. p. 1107).

Columba arborea, *Brehm, Vogelfang*, p. 237 (1855).

Palumbœna columbella, *Bp. Compt. Rend.* xliii. pp. 838 (1856).

Palumbæna columbella, *Bp. Cat. Parzudaki*, p. 9 (1856); *Loche, Expl. Sc. Algér.* ii. p. 113 (1857); *Bett. Ucc. Lomb.* t. 93.

Palumbœna œnas, *G. R. Gr. Hand-list*, ii. p. 233, n. 9241 (1870).

? Columba ænas, *Blanf. East. Pers.* ii. p. 269 (1876).

Cœlotreron œnas, *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 275 (1890).

Adult male. General plumage leaden grey, head a little darker, rump, upper tail-coverts, lower breast, abdomen, and under tail-coverts somewhat lighter; back and sides of the neck metallic green, changing into purple; lower throat and crop purple vinous, shading into grey on the chest; some of the innermost median and greater wing-coverts, and also some of the tertials, with black spots about the middle of their outer webs; these spots do not form a regular band on the wing; secondaries grey, with a broad terminal black band; primaries and their coverts blackish, the inner primaries grey at the base; under wing-coverts leaden grey; tail above dark leaden grey, with a broad apical black band; the outer feathers whitish at the base of the outer web; tail below black, greyish towards the base, and with a narrow leaden-grey band before the broad black apical one: bill red at the base, yellow towards the tip, and grey on the soft part at the base of the upper mandible; iris red; feet pinkish red. Total length about 13·5 inches, wing 8·4, tail 4·8, bill 0·85, tarsus 1·1.

Female. Similar to the male, but a little smaller, and duller in coloration.

Young. Duller in colour than the adult; the green colour on the neck is wanting, and the black markings on the wings are scarcely noticeable.

Hab. Western Palæarctic region, as far east as E. Turkestan.

a. Ad. st.	Dorsetshire, May.	Sharpe Coll.
b. ♂ ad. st.	Cambridgeshire.	Mr. J. Baker [P.].
c. Ad. st.	Gt. Britain.	Purchased.
d. Ad. sk.	Gt. Britain.	Gould Coll.
e. Ad. sk.	Norfolk (*J. Aspdin*).	Seebohm Coll.
f, g. Pull. st.	Norfolk.	Mr. J. Baker [P.].
h. ♂ ad. sk.	Norwich, Dec.	Seebohm Coll.
i. ♀ ad. sk.	Near Sheffield, Sept.	Seebohm Coll.
k, l. ♂ ♀ ad. sk.	Cookham, Feb. (*W. Briggs*).	Tweeddale Coll.
m, n. ♀ ad. et ad. sk.	Avington, May (*G. E. Shelley*).	Sharpe Coll.
o, p. ♂ ad. et ad. sk.	Avington, May, Nov. (*G. E. S.*).	Shelley Coll.
q. ♀ ad. sk.	Croydon, Feb.	Colonel Irby [P.].
r. Ad. sk.	Austria.	Seebohm Coll.
s, t. ♀ ad. et ♀ imm. sk.	Zebil Taurus, Asia Minor, Jan. (*C. G. Danford*).	Seebohm Coll.
u. Ad. sk.	Erzeroom.	Purchased.
v. Ad. sk.	Bagdad.	W. K. Loftus, Esq. [P.].
w. ♀ ad. sk.	Kara-bagh (*Aitchison*).	Afghan Delim. Com. [P.].
x. ♂ ad. sk.	Yarkand, June (*J. Scully*).	Hume Coll.
y. ♀ ad. sk.	Yarkand, Nov. (*J. Biddulph*).	Tweeddale Coll.
z. ♂ ad. sk.	E. Turkestan, April (*Prjevalsky*).	Seebohm Coll.

a'. ♂ ad. sk.	Lob-noor, Dec. (*Prjevalsky*).	Seebohm Coll.
b'. Skeleton.		Purchased.
c'. Skeleton.		Darwin Coll.
d', *e'*, *f'*. Skulls.		Dr. Günther's Coll.
g'. Young hybrid, *Columba œnas* × *C. livia* var. "Carrier."		Lord Lilford [P.].

9. Columba eversmanni.

? Columba minor fusca, *Gm. MS.*, *undè*

? Columba fusca, *Pall.** (*nec Müll.*) *Zoogr. Rosso-As.* i. p. 567 (1811).

Columba œnas, var., *Licht. in Eversm. Reise nach Buchara*, p. 132 (Tartary) (1823); *Wagl. Syst. Av.* Columba, note to sp. 45 (1827).

Columba œnas, var. tatarica, *Wagl.* (*fide Bp. Consp. Av.* p. 48, 1854).

Columba eversmanni, *Bp. Mus. Berol.* (*As. Occ. et Centr.*); *id. Compt. Rend.* xliii. p. 838 (1856); *Dress. B. of Eur.* vii. p. 26 (1876); *Saund. Yarr. Brit. B.* iii. p. 12 (1882); *Scully, J. A. S. B.* lvi. p. 86 (1887); *Tristr. Cat. Coll. B.* p. 37 (1889); *Sharpe, Tr. Linn. Soc.*, (2) *Zool.* v. p. 84 (1889); *id. Sc. Res. Sec. Yark. Miss., Aves*, p. 116 (1891).

Palumbœna eversmanni, *Bp. Compt. Rend.* xliii. pp. 838, 948 (1856); *Blyth, J. A. S. B.* xxvi. p. 219 (1857).

Columba œnicapilla, *Blyth, J. A. S. B.* xxvi. p. 219 (1857); *Gieb. Thes. Orn.* i. p. 248 (1872).

Palumbœna eversmanni, *Jerd. B. of Ind.* iii. p. 467 (1864); *Beav. Ibis*, 1868, p. 374 (Umballah); *Hume, Str. Feath.* i. p. 217 (1873); *id. Lahore to Yark.* p. 271, pl. xxxi. (1873); *Scully, Str. Feath.* iv. p. 175 (1876); *Hume, Str. Feath.* viii. p. 109 (1879); *Marsh. Ibis*, 1884, p. 421 (Chamba).

Columba evermanni (*sic*), *G. R. Gr. Hand-list*, ii. p. 232, n. 9238 (1870).

Columba fusca, *Severtz. Turk. Jevotn.* p. 68 (1873); *id. J. f. O.* 1873, pp. 347, 368, 1874, pp. 420, 422, 1875, p. 180; *id. Str. Feath.* iii. p. 431 (1875); *Bogd. Consp. Av. Imp. Ross.* fasc. i. p. 3 (1884); *Pleske, Mém. Ac. Pétersb.* (7) xxxvi. n. 3, p. 45 (1888).

? Columba fusca, var. *β.* brachyura, *Severtz. J. f. O.* 1875, p. 180.

Columba intermedia, *Dress.* (*nec Strickl.*) *Ibis*, 1876, p. 321; *Bidd. Ibis*, 1881, p. 91; *C. Swinh. Ibis*, 1882, p. 117; *Homey. & Tancré, MT. orn. Ver. Wien*, 1883, p. 91.

? Columba œnas, *Blanf. E. Persia*, ii. p. 269 (1876).

Cœlotreron eversmanni, *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p 275 (1890).

Similar to *C. œnas*, but smaller, and, besides, it has the upper part of the head tinged with vinaceous, the rump whitish grey, in some specimens pure white, and the grey band on the tail barely discernible; also the metallic feathers of the neck show coppery chestnut reflections: "bill pale yellowish green, base of lower mandible and gape slaty; legs and feet yellowish fleshy; irides dark

* It seems to me extremely uncertain to which species the name *C. fusca*, Pall., refers. Pallas himself never saw the bird, and he only gives the description taken from the elder Gmelin's manuscripts, in which there is nothing pointing to the present species.

yellow" (*A. O. Hume*). Total length about 12 inches, wing 7·5 to 8, tail 4·2 to 4·5, bill 0·7, tarsus 1.

Hab. From W. Siberia through Turkestan and Afghanistan to N. India.

Mr. Blanford (Zool. & Geol. of Persia, p. 269) suspects that this Pigeon inhabits also Southern Persia.

a. ♂ ad. sk.	Dschasyl Kul, Alu Tau, W. Siberia, March.	Dr. Otto Finsch [C.].
b. ♂ ad. sk.	Tashkend, Turkestan, April (*Severtzoff*).	Gould Coll.
c. ♂ ad. sk.	Tashkend, Turkestan, April (*Severtzoff*).	Tweeddale Coll.
d, e. ♂ ♀ ad. sk.	Tirphul, Afghanistan, April (*Aitchison*).	Afghan Delimitation Comm. [P.].
f. ♂ ad. sk.	Toman-agha, Afghanistan, April (*Aitchison*).	Afghan Delimitation Comm. [P.].
g. Ad. sk.	Near Chughur Serai.	India Museum [P.].
h. ♀ ad. sk.	Kandahar, April (*Sir O. St. John*).	Hume Coll.
i–m. ♂ ♀ ad. sk.	Upper Sindh, Jan. (*A. O. H.*).	Hume Coll.
n, o. ♂ ad. sk.	Sukkur, Sindh, Feb. (*E. A. Butler*).	Seebohm Coll.
p–t. ♂ ♀ ad. sk.	Sirsa District, Punjaub, Nov. (*A. O. H.*).	Hume Coll.
u. ♂ ad. sk.	Sirsa District, Dec. (*A. O. H.*).	Tweeddale Coll.
v. Ad. sk.	Umballah, Feb. (*Dr. Jerdon*).	Tweeddale Coll.
w. Ad. sk.	Dehra Dhoon.	Hume Coll.
x. ♂ ad. sk.	Sultanpur, Gurgaon Distr., Dec. (*W. N. Chill*).	Hume Coll.
y, z. ♂ ad. sk.	Sultanpur, Gurgaon Distr., Dec. (*W. N. Chill*).	Salvin-Godman Coll.
a'. ♂ ad. sk.	Delhi, April (*C. T. Bingham*).	Hume Coll.
b'. Ad. sk.	Allyghur, Nov. (*W. E. Brooks*).	Hume Coll.
c'. Ad. sk.	Oudh.	Hume Coll.
d', e'. Ad. sk.	N.W. India.	Capt. Stackhouse Pinwill [P.].
f', g'. ♂ ♀ ad. sk.	Futtehgurh, March (*A. Anderson*).	Seebohm Coll.

10. Columba albitorques.

Columba albitorques, *Rüpp. Neue Wirbelth.* p. 63, pl. 22. f. 1 (Abyssinia) (1835); *G. R. Gr. Gen. B.* ii. p. 470, n. 10 (1844); *Rüpp. Syst. Uebers.* p. 100 (1845); *Des Murs in Lefebv. Voy. Abyss., Ois.* p. 140 (1845–50); *Rchnb. Syn. Av.* f. 1243 (1847); *Bp. Consp. Av.* ii. p. 49 (1854); *id. Compt. Rend.* xxxix. p. 1107 (1854), xl. p. 218, n. 138 (1855); *id. Coup d'œil Ordre Pig.* pp. 24, 56, n. 138 (1855); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 31 (1856); *Heugl. J. f. O.* 1861, p. 196 (Tigreh), 1862, pp. 293, 306; *Rchnb. Tauben*, i. p. 59, t. 220. f. 1243 (1862); *Finsch & Jesse, Trans. Zool. Soc.* vii. p. 288 (1870); *Blanf. Geol. & Zool. Abyss.* p. 416 (1870); *Heugl. Orn. N.O.-Afr.* i. 2, p. 826 (1871); *Gieb. Thes. Orn.* i. p. 740 (1872); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 13

(1873); *Heugl. Orn. N.O.-Afr.* ii. App. p. clxix (1875); *Shell. Ibis*, 1883, p. 277; *Salvad. Ann. Mus. Civ. Gen.* (2) i. p. 206 (1884), vi. p. 303 (1888); *Hartert, Kat. Vogelsamml.* p. 186 (1891).
Tænicenas albitorques, *Rchnb. Av. Syst. Nat.* p. xxv (1852); *G. R. Gr. Hand-list*, ii. p. 234, n. 9265 (1870); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 276 (1890).
Palumbus albitorques, *Heugl. Syst. Uebers.* n. 509 (1856).
Stictœnas albitorques, *Schleg. Mus. P.-B.* Columbæ, p. 72 (1873).

Adult male. General plumage bluish slate-colour, back and scapulars with a brownish tinge; on the nape a white collar, which becomes very narrow in front of the neck and on the sides of the throat; feathers of the neck lanceolate, glossed with green at the tips; primary-coverts white, bluish grey at the tips; many of the upper wing-coverts have black oval spots on the outer webs; quills brown; under wing-coverts bluish slate; tail above brown-black, with a paler ashy bar before the terminal black one; tail below nearly uniform black, with the ashy bar scarcely perceptible: "iris dull red, approaching violet; beak black, cere white; legs pink" (*Blanford*). Total length 11·5 inches, wing 8·6, tail 4·7, bill 0·8, tarsus 1·1.

Female. Similar to the male.

Hab. Abyssinia and Shoa.

a. Ad. st.	Abyssinia.	Rüppell Coll.
b. ♀ ad. sk.	Senafé, Abyssinia, May (*Jesse*).	Tweeddale Coll.
c. ♀ ad. sk.	Sekoondah, Tigré, Abyssinia, March.	W. T. Blanford, Esq. [C.].
d, e. ♂ ♀ ad. sk.	Angollallah, Abyssinia, May, June (*Harris*).	India Museum [P.].
f. ♂ ad. sk.	Ankober, Abyssinia, Feb. (*Harris*).	India Museum [P.].
g. Ad. sk.	Shoa (*Harris*).	India Museum [P.].

11. Columba guinea.

Triangular-spotted Pigeon, *Edw. Birds*, i. pl. 75 (1747) (Guinea); *Lath. Syn.* ii. 2, p. 639, n. 32 (1783).
Columba guineensis, *Briss. Orn.* i. p. 132 (1760).
Columba guinea, *Linn. S. N.* i. p. 282, n. 16 (1766) (*ex Edwards*); *Gm. S. N.* i. 2, p. 774, n. 16 (part.) (1788); *Lath. Ind. Orn.* ii. p. 602, n. 35 (part.) (1790); *Temm. Hist. Nat. Pig. et Gallin.* i. pp. 214, 462 (part.) (1813); *Vieill. N. D.* xxv. p. 353 (1818); *Steph. Gen. Zool.* xi. p. 10 (part.) (1819); *Desm. Dict. Sc. Nat.* xl. pp. 327, 428 (part.) (1826); *Rüpp. Neue Wirbelth.* p. 67 (Abyssinia, Sennaar, Kordofan) (1835); *G. R. Gr. Gen. B.* ii. p. 470, n. 9 (part.) (1844); *Rüpp. Syst. Uebers.* p. 100 (1845); *Des Murs in Lefebv. Voy. Abyss.* p. 139 (1845–50); *Strickl. P. Z. S.* 1850, p. 219 (Kordofan); *Vierth. Naumannia*, 1852, p. 48; *Brehm, J. f. O.* 1853, Extr. p. 100 (Blue Nile); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 32 (1856); *Hartl. Orn. W.-Afr.* p. 194 (Senegal, Casamanse, Guinea, Rollas I., Angola) (1857); *id. P. Z. S.* 1863, p. 106 (E. Afr.); *Sclat. P. Z. S.* 1864, p. 113 (Kazeh, Moningo); *Antin. Cat.* p. 87 (White Nile) (1864); *Sclat. P. Z. S.* 1869, p. 627; *Blanf. Geol. & Zool. Abyss.* p. 415 (Senafé, Lebka) (1870); *Gieb. Thes.*

Orn. i. p. 243 (1872); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 13 (1873); *Antin. & Salvad. Viagg. Bogos*, p. 130 (Keren) (1873); *Gulliv. P. Z. S.* 1875, p. 489; *Salv. Cat. B. Strickl. Coll.* p. 543 (syn. emend.) (1882); *Sclat. List Vert. An.* 8th ed. p. 447 (1883); *Salvad. Ann. Mus. Civ. Gen.* (2) i. p. 206 (Shoa) (1884); *Goodch. P. Z. S.* 1886, p. 193, fig. p. 192 (cubital coverts); *Brisay, Bull. Soc. Acclim.* 1889, p. 55; *Hartert, Kat. Vogelsamml.* p. 186 (1891); *Rchnw. J. f. O.* 1891, p. 142.

Pigeon de Guinée, *Buff. Hist. Nat., Ois.* ii. p. 538 (1771).

Columba trigonigera, part., *Wagl. Syst. Av.* Columba, sp. 51 (1827); *Sw. B. W. Afr.* ii. p. 212 (part.) (1837); *Allen & Thoms. Exp. Niger*, ii. p. 41 (Rollas Is.) (1848).

Stictœnas guinea, *Rchnb. Av. Syst. Nat.* p. xxv (1852); *Bp. Consp. Av.* ii. p. 50 (1854); *id. Compt. Rend.* xxxix. p. 1105 (1854), xl. p. 218, n. 139 (1855); *id. Coup d'œil Ordre Pig.* pp. 21, 56, n. 139 (1855); *Rchnb. Tauben*, i. p. 59 (1862), ii. p. 171, *Novit. Suppl.* t. ii. f. 22 (*ex Edwards*) (1862); *G. R. Gr. Hand-list*, ii. p. 234, n. 9261 (1870); *Schleg. Mus. P.-B.* Columbæ, p. 72 (Cape of Good Hope (!) and Abyssinia) (1873); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 276 (1890).

Stictœnas dilloni, *Bp. Compt. Rend.* xxxix. p. 1105 (Abyssinia) (1854), xl. p. 218 (?) (1855); *id. Coup d'œil Ordre Pig.* pp. 22, 56 (?) (1855).

Alsocomus guinea, *Blyth, J. A. S. B.* xxiv. p. 260 (1855).

Palumbus guineus, *Heugl. Syst. Uebers.* p. 49, n. 508 (1856); *Hartl. J. f. O.* 1863, p. 468.

Columba guineensis, *Finsch & Hartl. Vög. Ostafr.* p. 539 (part.) (1870); *Finsch & Jesse, Tr. Zool. Soc.* vii. p. 288 (Abyssinia) (1870); *Heugl. Orn. N.O.-Afr.* i. 2, p. 822 (1871), ii. App. p. clxviii (1875); *Boc. Jorn. Ac. Sc. Lisb.* 1872, n. xiii. p. 67; *id. J. f. O.* 1876, p. 314; *id. Orn. Ang.* p. 381 (1881); *Böhm, J. f. O.* 1882, p. 199 (Central Africa); *Hartl. Abh. Ver. Brem.* viii. p. 216 (1882) (Central Africa); *Shell. Ibis*, 1883, p. 278; *Schal. J. f. O.* 1883, p. 343 (Ugogo); *Fischer, Zeitschr. ges. Orn.* 1884, p. 376; *Sharpe, Journ. Linn. Soc., Zool.* xvii. p. 436 (Equator. Afr.) (1884); *Fisch. J. f. O.* 1885, p. 119; *Rchnw. J. f. O.* 1887, p. 51; *Shell. P. Z. S.* 1889, p. 369; *Emin, J. f. O.* 1891, p. 58.

Stictœnas guineensis, *Pelz. Verh. z.-b. Ges. Wien*, 1881, p. 616 (Central Africa).

Adult male. Head, throat, body beneath, rump, and upper tail-coverts cinereous, lighter or ashy white on the rump; feathers of the neck ruddy vinaceous, each feather being bifid at the tip, stiff and inclined to cinereous, with a glossy green tint; back, scapulars, and upper wing-coverts vinous chestnut, the latter with numerous triangular white spots, which also appear on some of the cinereous feathers of the wings; quills dusky ashy colour, darker or brown below; tail grey with a broad black band on the apical third; the outer feathers white at the basal half of the outer web: "bill blackish, iris red; feet red or pink" (*Antinori*); "bare skin round the eyes blood-red" (*Emin Pasha*). Length about 13 inches, wing 9·25, tail 5, bill 0·8, tarsus 1·05.

Female. Similar to the male, but somewhat smaller.

Hab. West Africa, from Senegal to Angola, and across Central Africa to East Africa, where it ranges from about 4° S. lat.

northwards to about 16° N. lat., or from Uniamnezi to Abyssinia, Sennaar, and Kordofan.

a, *b*. Ad. sk.	Gambia.	Govr. Rendall [C.].
c. Ad. sk.	Gambia.	Salvin-Godman Coll.
d. Ad. sk.	Niger (*Baikie*).	Shelley Coll.
e. Ad. sk.	Niam-Niam Country, Sept.	F. Bohndorff, Esq. [C.].
f. ♂ ad. sk.	Abyssinia, Feb. (*Harris*).	India Museum [P.].
g. ♂ ad. sk.	Sekoondah, Tigré, Abyssinia, Feb.	W. T. Blanford, Esq. [C.].
h. ♂ ad. sk.	Senafé, Abyssinia, April (*Jesse*).	Salvin-Godman Coll.
i. ♂ ad. sk.	Kokai, Abyssinia, July (*Jesse*).	Tweeddale Coll.
k. ♂ ad. sk.	E. Kilimanjaro, June.	H. C. V. Hunter, Esq. [P.].
l. Ad. sk.	E. Africa.	Verreaux Coll.
m. Skeleton.	W. Africa.	Purchased.

12. Columba phæonota.

Tourterelle du Cap de Bonne-Espérance, *Sonner. Voy. Ind. Or.* ii. p. 179 (1782).

Ramier Roussard, *Levaill. Ois. d'Afr.* vi. p. 70, pl. 265 (1808).

Columba guinea, part., *Gm. S. N.* i. 2, p. 774, n. 16 (1788); *Lath. Ind. Orn.* ii. p. 602, n. 35 (part.) (1790); *Knip & Temm. Pig.* i. pl. 16 (1808–11); *Temm. Hist. Nat. Pig. et Gallin.* i. pp. 214, 462 (part.) (1813); *Vieill. N. D.* xxv. p. 353 (part.) (1818); *Steph. Gen. Zool.* xi. p. 10 (part.) (1819), xiv. p. 292 (1826); *Desm. Dict. Sc. Nat.* xl. p. 327 (part.) (1826); *Less. Tr. d'Orn.* p. 470 (1831); *Hartl. Syst. Verz.* p. 98 (1844); *Rchnb. Syn. Av.* f. 1250 (1847); *Strickl. & Sclat. Contr. Orn.* 1852, p. 156 (Damara); *Layard, B. S. Afr.* p. 256 (1867); *Chapm. Trav. S. Afr.* App. p. 411 (1868); *Woodw. Zoologist*, 1875, p. 4615 (Natal).

Columba guineensis, *Bonn. Enc. Méth.* i. p. 245 (1790); *Finsch & Hartl. Vög. Ostafr.* p. 439 (part.) (1870); ? *Bocage, Orn. Ang.* p. 381 (Huilla, Capangombe) (1881).

Columba trigonigera, *Wagl. Syst. Av.* Columba, sp. 51 (part.) (1827); *Sw. B. W. Afr.* ii. p. 12 (part.) (1837); *Sundev. K. Sv. Vet.-Ak. Handl.* 1857, p. 53, n. 265; *Gurn. Ibis*, 1860, p. 214, 1864, p. 359; *Pelz. Novara Reis., Vög.* p. 108 (1865); *Gurn. Ibis*, 1868, p. 164; *Gieb. Thes. Orn.* i. p. 751 (1872).

Stictœnas guinea, *Rchnb. Av. Syst. Nat.* p. xxv (1852).

Stictœnas trigonigera, *Bp. Consp. Av.* ii. p. 50 (1854); *id. Compt. Rend.* xxxix. p. 1105 (1854), xl. p. 218, n. 140 (1855); *id. Coup d'œil Ordre Pig.* pp. 20, 56, n. 140 (1855); *id. Compt. Rend.* xliii. p. 838 (1856); *Rchnb. Tauben*, i. p. 60, t. 221. f. 1250 (1862); *Schley. Mus. P.-B.* Columbæ, p. 73 (1873); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 14 (1873) (Cape of Good Hope and Angola).

Columba phæonotus, *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 32 (S. Africa) (1856); *Bp. Compt. Rend.* xliii. p. 838 (1856); *Buckl. Ibis*, 1874, p. 384 (Natal).

Strictœnas phæonotus, *G. R. Gr. Hand-list*, ii. p. 234, n. 9262 (1870); *Gurn. in Anderss. B. Damara-land*, p. 231 (1872); *Shell. Ibis*, 1875, p. 83 (Cape Colony).

Columba guineæ, *Barratt, Ibis*, 1876, p. 208 (Transvaal).

Columba phæonota, *Ayres, Ibis*, 1877, p. 345 (Transvaal), 1880, p. 109; *Shell. Ibis*, 1882, p. 359 (S.E. Afr.); *Butl., Feild., & Reid, Zoolog.* 1883, p. p. 337 (Natal); *Shell. Ibis*, 1883, p. 279 (S. Afr.); *Sharpe, Layard's B. S. Afr.* p. 559 (1884); *Tristr. Cat. Coll. B.* p. 38 (1889).

Stictœnas phæonota, *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 276 (1890).

Columba guinea trigonigera, *Hartert, Kat. Vogelsamml.* p. 186 (1891).

Similar to *C. guinea*, from which it is distinguished by having the grey part of the plumage much darker, and the rump and upper tail-coverts deep leaden grey instead of ashy white: "iris pale yellow when immature, changing to red in the adult; bill dusky slate-colour, with the cere (that is over the nostrils) white; legs red, powdered with white between the scales" (*Shelley*). Total length about 12 inches; wing 9·2 to 8·2, tail 4·8, bill 0·9, tarsus 1·05.

Hab. South Africa.

a. Ad. sk.	S. Africa.	Earl of Derby [P.].	(Types of species.)
b. Juv. sk.	Cape of Good Hope.	Zool. Soc. Coll.	
c. ♂ ad. sk.	Between Wellington and Ceres, Cape Colony, Jan. (*G. E. S.*).	Shelley Coll.	
d. Ad. sk.	Natal.	T. L. Ayres, Esq. [C.].	
e. ♂ ad. sk.	Natal, June (*Buckley*).	Shelley Coll.	
f. ♀ ad. sk.	Berg Mts., Durban, April (*Gordge*).	Shelley Coll.	
g. Ad. sk.	Drackensberg, Aug. (*A. E. Butler*).	Shelley Coll.	
h. Ad. sk.	Rustenburg.	F. A. Barratt, Esq. [P.].	
i. ♀ ad. sk.	Potchefstroom, June (*T. L. Ayres*).	Salvin-Godman Coll.	
k. ♀ ad. sk.	Potchefstroom, June (*T. L. Ayres*).	Gurney Coll.	

13. Columba gymnophthalma.

? Columba corensis, *Jacq. Beytr.* p. 31, n. 25 (1784) (Coro in Venezuela); *Gm. S. N.* i. p. 783, n. 59 (1788); *Lath. Ind. Orn.* ii. p. 605, n. 46 (1790); *Bonn. Enc. Méth.* i. p. 245 (1790).

? Grey Pigeon, *Lath. Gen. Syn. Suppl.* i. p. 201 (1787) (*ex Jacquin*).

Columba gymnophthalmos, *Temm. & Knip, Pig.* i. seconde fam. p. 48, pl. 18 (1808–11) (excl. syn.) (type examined); *Temm. Pig. et Gallin.* i. pp. 225, 463 (1813); *Vieill. Enc. Méth.* i. p. 379 (1823); *Desm. Dict. Sc. Nat.* xl. p. 328 (1826); *Less. Tr. d'Orn.* p. 470 (1831); *id. Compl. de Buff., Ois.* viii. p. 95 (1837); *id. op. cit.* 2nd ed. p. 295 (1838); *G. R. Gr. Gen. B.* ii. p. 470, n. 6 (1844) (syn. emend.).

Columba gymnophthalmus, *Steph. Gen. Zool.* xi. p. 6 (1879); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 31 (syn. emend.) (1856); *Gieb. Thes. Orn.* i. p. 744 (syn. emend.) (1872); *Hartert, Bull. Br. Orn. Club*, no. iii. p. xii (1892) (Curaçao, Aruba, Bonaire).

Columba loricata, part., *Wagl. Syst. Av.* Columba, sp. 53 (1827).

Picazurus gymnophthalmus, *Des Murs in Chenu, Enc. d'Hist. Nat., Ois.* vi. p. 39 (1854 ?).

Crossophthalmus gymnophthalmus, *Bp. Consp. Av.* ii. p. 55 (part.) (1854); *id. Compt. Rend.* xxxix. p. 1110 (1854), xl. p. 218, n. 156 (1855); *id. Coup d'œil Ordre Pig.* pp. 26, 56, n. 156 (1855); *Rchnb. Tauben*, i. p. 66 (1862) (syn. emend.), ii. p. 172, t. ii. f. 23 (*ex Knip*) (1862); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 15 (1873).

? Patagiœnas loricata, *Burm.* (*nec Licht.*) *Syst. Ueb. Thier. Bras.* iii. p. 294 (1856).

Columba gymnophthalma, *Sclat. P. Z. S.* 1865, p. 239 (one egg); *Sclat. & Salv. P. Z. S.* 1868, p. 143, 1869, p. 600; *Sclat. P. Z. S.* 1869, p. 627; *Scl. & Salv. Nomencl. Av. Neotr.* p. 132, n. 5 (1873); *Salv. Cat. B. Strickl. Coll.* p. 544 (1882); ? *Sclat. List Vert. An.* 8th ed. p. 448 (part.) (1883).

Picazuros gymnophthalmos, *G. R. Gr. Hand-list*, ii. p. 234, n. 9266 (syn. emend.) (1870).

? Lepidœnas loricata, *Schleg. Mus. P.-B.* Columbæ, p. 69 (specim. 1) (1873).

? Crossophthalmus gymnophthalmus, *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 276 (1890).

Adult. Head, throat, front part of the neck, breast, and abdomen pale rosy vinous, changing into whitish on the vent and under tail-coverts; back, scapulars, and wing pale brown; lower back and upper tail-coverts dull grey, the latter with a slight pale brown tinge towards the tips; lower part of the hind neck with light grey and dark grey narrow bands above, and with reddish opaline and blackish narrow bands lower down; the anterior wing-coverts with broad white edges, narrower on the secondaries; primaries brown, with narrow paler or whitish edges; under wing-coverts dull greyish; under surface of the quills greyish, darker towards the tips; tail uniform sandy grey or drab-grey, paler below: bill in dry skins pale yellow; naked skin round the eyes very broad, with a ring of horny papillæ (painted blue in Temminck's plate); feet pale yellowish in dry skin. Total length about 13 inches, wing 8, tail 5, bill 0·6, tarsus 0·9.

Hab. Curaçao, Aruba, and Bonaire; perhaps also the coast of Venezuela. Only lately Mr. Hartert has discovered the true *habitat* of this species, which till quite recently was supposed to be from the interior of Brazil.

a. Ad. st. S. America (*fide Verreaux*). Purchased *.

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* *Hybrid between* C. gymnophthalma *and* C. picazuro ?

? Columba gymnophthalma, *Sclat. List Vert. An.* 8th ed. p. 448, specim. (?) (1883).

Similar to *C. gymnophthalma*, but the vinous colour of the head, throat, and underparts deeper and brighter, also the brown colour of the upper parts darker; the grey colour of the lower back, rump, and upper tail-coverts darker; the under tail-coverts distinctly grey, and the tail, instead of being uniform sandy grey, has a dark subterminal band quite distinct. Total length about 13 inches, wing 8·2, tail 5·2, bill 0·6, tarsus 0·95.

a. Ad. st. Zool. Soc. Gardens.

14. Columba picazuro.

Picazuro, *Azara, Apunt.* iii. p. 4, n. 317 (1802) (Paraguay); *id. ed. Sonn. Voy.* iii. p. 126, n. 317 (1809).

Columba picazuro, *Temm. Pig. et Gallin.* i. pp. 411, 449 (1813); *Vieill. N. D.* xxvi. p. 357 (1818); *id. Enc. Méth.* i. p. 375 (1823); *Desm. Dict. Sc. Nat.* xl. p. 322 (1826); *Less. Compl. de Buff., Ois.* viii. p. 96 (1837); *id. op. cit.* 2nd ed. p. 295 (1838); *Sclat. & Salv. P. Z. S.* 1868, p. 143 (Conchitas), 1869, p. 600; *Sclat. P. Z. S.* 1872, p. 545 (note); *Garrod, P. Z. S.* 1873, pp. 468, 639; *Sclat. & Salv. Nomencl. Av. Neotr.* p. 132 (1873); *id. Ibis*, 1877, p. 193, note (Buenos Ayres); *Durnf. Ibis*, 1878, p. 65; *Gibson, Ibis*, 1880, p. 6 (Buenos Ayres); *Forbes, Ibis*, 1881, p. 356 (N.E. Brazil); *Sclat. List Vert. An.* 8th ed. p. 448 (1883); *Barrows, Auk*, 1884, p. 274 (Concepcion, Lower Uruguay); *Berl. & Jher. Zeitschr. d. ges. Orn.* 1885, p. 176 (Rio Grande do Sul); *Berl. J. f. O.* 1887, p. 124; *Sclat. Argent. Orn.* ii. p. 139 (1889); *Frenzel, J. f. O.* 1891, p. 123.

Columba maculata (*errore*), *Steph. Gen. Zool.* xi. p. 45 (1819).

Columba leucoptera, *Wied* (*nec Linn.*), *Reise n. Bras.* ii. p. 242 (1821).

Columba loricata, *Licht. Verz. Doubl.* p. 67 (1823) (=Picazuro, *Az.*, Montevideo); *Wagl. Syst. Av.* Columba, sp. 53 (part.) (1827); *Darwin, Voy. 'Beagle,' Birds*, p. 115 (Maldonado) (1841) (syn. emend.).

? Colombe double collier, *Less. Tr. d'Orn.* p. 469, n. 22 (1831); *Pucher. fide Bp. Consp.* ii. p. 55.

Columba pœciloptera, *Wied* (*nec Vieill.*), *Beitr.* iv. p. 459 (Rios das Contas) (1832).

Columba gymnophthalmos, *G. R. Gr. Gen. B.* ii. p. 470, n. 6 (part.) (1844); *Hartl.* (*nec Temm.*) *Ind. Azar. Apunt.* p. 20, n. 317 (1847).

Crossophthalmus gymnophthalmus (part.), *Bp. Consp. Av.* ii. p. 55 (1854); *id. Compt. Rend.* xxxix. p. 1110 (1854), xl. p. 218, n. 156 (part.) (1855); *id. Coup d'œil Ordre Pig.* pp. 26, 56, n. 156 (part.) (1855); *Pelz.* (*nec Temm.*) *Orn. Bras.* pp. 274, 450, liv (1871) (Cuyaba, Sangrador, Engenho do Gama).

? Patagiœnas loricata, *Burm.* (*nec Licht.*) *Syst. Ueb. Thier. Bras.* iii. p. 294 (1856).

Patagiœnas maculosa, *Burm.* (*nec Temm.*) *Syst. Ueb. Thier. Bras.* iii. p. 294 (part.) (1856); *id. La-Plata Reise*, ii. p. 496 (1861) (Mendoza, Cordova, Tucuman).

Picazuros picazuro, *G. R. Gr. Hand-list*, ii. p. 235, n. 9268 (1870).

Columba maculosa, *Durnf.* (*nec Temm.*) *Ibis*, 1877, p. 193 (Buenos Ayres).

Lepidœnas loricata, part., *Schleg. Mus. P.-B.* Columbæ, p. 69 (Paraguay) (1873).

? Columba gymnophthalma, *Allen* (*nec Temm.*), *Bull. Am. Mus. N. H.* ii. p. 270 (1889).

Adult male. Head, neck, and under surface rich vinous; hind neck grey, each feather with two narrow bands, one subapical light grey and a second marginal one black; on the lower hind neck the feathers have a vinous amethystine tinge; interscapular region, scapulars, and upper wing-coverts sooty brown, the latter lighter and gradually greyer towards the outer ones, which, with the greater, are broadly edged with white; lower back, rump, upper

and under tail-coverts plumbeous; quills grey, darker, almost brown, towards the tips; under surface of the wings grey; tail plumbeous, with a broad apical black band: "bill black" (*Sclater & Salvin*); "legs red, between scarlet and carmine" (*Durnford*); "eye red" (*Hudson*). Total length 14 to 13·5 inches, wing 9 to 8·5, tail 5 to 4·5, bill 0·78 to 0·73, tarsus 1·2 to 1·02.

Immature birds want the fine grey and black transverse markings on the sides of the neck.

Hab. Brazil, Bolivia (?), Paraguay, Uruguay, and Argentine Republic.

a. ♂ ad. sk.	Conchitas, Buenos Ayres, Sept. (*W. H. Hudson*).	Salvin-Godman Coll.
b. Ad. sk.	Maldonado.	Sir W. Burnett & Capt. Fitzroy [P.].
c. Ad. sk.	Maldonado (*C. Darwin*).	Voyage of the 'Beagle.'
d. ♂ ad. sk.	Uruguay, Aug.	Alan Peel, Esq. [P.].
e. ♂ ad. sk.	Engenho do Gama, Brazil, Sept. (*Natterer*).	Salvin-Godman Coll.
f. Ad. sk.	Cuyaba, Brazil, May (*Natterer*).	Salvin-Godman Coll.
g. Juv. sk.	Bolivia (*Bridges*).	Eyton Coll.
h. Imm. sk.	[W. Indies.]	Baron Laugier Coll.
i. Skeleton.	S. America.	Purchased.

15. Columba albipennis. (Plate VIII.)

? Crossophthalmus gymnophthalmus (part.), *Bp. Consp. Av.* ii. p. 55 (Bolivia) (1854).

Columba maculosa, *Sclat. & Salv.* (*nec Temm.*) *P. Z. S.* 1869, p. 600 (Peru), 1873, p. 186 (Peru); *iid. Nomencl. Av. Neotr.* p. 132, n. 7 (part., Peru, Bolivia) (1873); *Oust. Miss. Sc. Cap Horn, Ois.* p. 328, n. 100 (part., Bolivia) (1891).

Columba albipennis, *Sclat. & Salv. P. Z. S.* 1876, p. 18 (Peru, Bolivia); *Boeck, Mitth. orn. Ver. Wien*, 1884, p. 165 (Bolivia); *Tacz. Orn. Pér.* iii. p. 232, *Tables*, p. 101 (1886).

Adult male (type). Head, neck, breast, and abdomen grey with a vinous tinge, scarcely visible on the latter; sides of the head and cheeks dark grey, with scarcely any vinous tinge; feathers of the mantle, scapulars, and upper wing-coverts sooty brown, with lighter edges, whitish and more conspicuous on the latter; outer and greater wing-coverts broadly edged to the tip with white; back, rump, and upper tail-coverts plumbeous; under tail-coverts plumbeous, with lighter edges; quills greyish brown, with a narrow whitish edge, more conspicuous on the secondaries; under wing-coverts and sides grey; tail plumbeous, with a broad terminal black band: "bill black, with the base yellowish [in dry skins?]; feet red" (*Sclater & Salvin*). Total length 14·5 inches, wing 9, tail 5, bill 0·58, tarsus 1·2.

Hab. Southern Peru and Bolivia.

This species resembles *C. maculosa*, from which it is easily distinguished by the white spots on the wing-coverts being not triangular, but confined to the apical edges, and by the much broader white edges of the outer greater wing-coverts, in which respect it resembles *C. picazuro*.

a. Ad. sk.	Pitumarca, Peru, April (*H. Whitely*).	Salvin-Godman Coll. (Type of species.)
b. Ad. sk.	Bolivia (*Forbes*).	Salvin-Godman Coll.
c. Ad. st.	Bolivia.	T. Bridges, Esq. [C.].

16. Columba maculosa.

Paloma cobijas manchadas, *Azar. Apunt.* iii. p. 10, n. 318 (1802); *id. Voy. ed. Sonn.* iii. p. 128, n. 318 (1809).

Columba maculosa, *Temm. Pig. et Gallin.* i. pp. 113, 450 (1813); *Steph. Gen. Zool.* xi. p. 24 (1819); *Less. Compl. de Buff., Ois.* viii. p. 97 (1837); *id. op. cit.* 2nd ed. p. 296 (1838); *G. R. Gr. Gen. B.* ii. p. 470, n. 7 (1844); *Hartl. Ind. Azar. Apunt.* p. 20, n. 318 (1847); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 31 (1856); *Sclat. P. Z. S.* 1865, p. 239; *Sclat. & Salv. P. Z. S.* 1868, p. 143, 1869, p. 600; *Sclat. P. Z. S.* 1870, p. 665; *Hudson & Sclat. P. Z. S.* 1872, pp. 545, 549 (Rio Negro); *Garrod, P. Z. S.* 1873, pp. 468, 639; *Sclat. & Salv. Nomencl. Av. Neotr.* p. 132, n. 7 (part., Paraguay & Rep. Argentina) (1873); *Garrod, P. Z. S.* 1874, p. 256; *Leybold, Exc. Pampas Argent.* p. 89 (1873); *id. J. f. O.* 1877, p. 444; *Durnf. Ibis*, 1877, p. 42 (Chuput, Patagonia), 1878, p. 401 (Centr. Patagonia); *White, P. Z. S.* 1882, p. 626 (Catamarca); *Sclat. List Vert. An.* 8th ed. p. 448 (1883); *Barrows, Auk*, 1884, p. 274 (Concepcion, Lower Uruguay); *Gibs. Ibis*, 1885, p. 282; ? *Berl. J. f. O.* 1887, p. 133; *Pelz. & Lor. Ann. Naturh. Hofmus.* iii. p. 48 (1888); *Sclat. Argent. Orn.* ii. p. 140 (1889); *Hartert, Kat. Vogelsamml.* p. 186 (1891); *Oust. Miss. Sc. Cap Horn, Ois.* p. 328, n. 100 (part.) (1891).

Columba pœciloptera, *Vieill. N. D.* xxvi. p. 344 (1818) (Paraguay, *ex Azara*); *id. Enc. Méth.* i. p. 375 (1823); *Wagl. Syst. Av.* Columba, sp. 49 (1827); *id. Isis*, 1829, p. 744; *Desm. Dict. Sc. Nat.* xl. p. 370 (1826); *D'Orb. Voy.* ii. pp. 303, 318 (1844).

Columba maculipennis, *Licht. Mus. Berol., fide Bp. Consp. Av.* ii. p. 55 (1854); *Pelz. Orn. Bras.* p. 274 (note) (1871).

? Colombe à ailes ponctuées, *Less. Tr. d'Orn.* p. 469, n. 21 (1831) (=juv.); *Pucher. fide Bp. Consp.* ii. p. 55*.

Columba gymnophthalmos, *Rchnb.* (*nec Temm.*) *Syn. Av.* f. 1268 (1847).

Palumbus gymnophthalmus, *Rchnb. Av. Syst. Nat.* p. xxv, f. 1268 (1852).

Crossophthalmus reichenbachi, *Bp. Consp. Av.* ii. p. 55 (1854); *id. Compt. Rend.* xxxix. p. 1110 (1854), xl. p. 218, n. 157 (1855); *id. Coup d'œil Ordre Pig.* pp. 26, 56, n. 157 (1855); *Rchnb. Tauben*, i. p. 67, t. 226. f. 1268 (1862); ? *Sousa, Mus. Nac. Lisb.* Columbæ, p. 15 (1873).

Chlorœnas flavirostris, juv.?, *Bp.* (*ex Wagl.*) *Compt. Rend.* xxxix. p. 1110 (Mexico!) (1854); *id. Coup d'œil Ordre Pig.* p. 27 (1855).

? Patagiœnas maculosa, *Burm. Syst. Ueb. Thier. Bras.* iii. p. 294 (1856); *id. J. f. O.* 1860, p. 258; *id. La Plata Reis.* ii. p. 496 (1861); *Frenzel, J. f. O.* 1891, p. 123.

Picazuros maculosa, *G. R. Gr. Hand-list*, ii. p. 235, n. 9267 (1870).

Crossophthalmus maculosus, *Pelz. Orn. Bras.* p. 274 (note) (1871); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 276 (1890).

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* I have not been able to find the work in which Dr. Pucheran has identified Lesson's bird.

Columba reichenbachi, *Gieb. Thes. Orn.* i. p. 750 (1872).
Lepidœnas loricata (part.?), *Schleg. Mus. P.-B.* Columbæ, p. 69 (Paraguay) (1873).
Chlorœnas fallax, *Schleg. Mus. P.-B.* Columbæ, p. 80 (Mexico! and Rio Negro) (1873); *Gieb. Thes. Orn.* iii. p. 795 (1877).

Adult male. Head, neck, and whole under surface grey, with a very strong vinaceous tinge; sides of the head and cheeks dark grey, with no vinous tinge; feathers of the mantle, scapulars, and upper wing-coverts sooty brown, tipped with white triangular spots, broader and very conspicuous on the latter; outer greater wing-coverts bluish grey, edged to the tip with white; back, rump, upper and under tail-coverts plumbeous; quills greyish black, with narrow whitish edges; under surface of the wings and sides light plumbeous; tail plumbeous, with a broad terminal black band: "iris white or light slate" (*White*), "grey; beak grey; legs red" (*A. Peel*). Total length about 14 inches, wing 9·3 to 8·75, tail 5, bill 0·52, tarsus 1·1.

Hab. Uruguay, Argentina, and Patagonia.

a. ♂ ad. sk.	Cosquin, Cordova, Argentine Rep., June (*E. W. White*).	Salvin-Godman Coll.
b. ♂ ad. sk.	Mendoza, Argentine Rep., Feb. (*Weishaupt*).	Salvin-Godman Coll.
c. ♂ ad. sk.	Rio Negro (*W. H. Hudson*).	Salvin-Godman Coll.
d. ♂ ad. sk.	Uruguay, Sept.	Alan Peel, Esq. [C.].
e. Juv. sk.	S. America (*Massena Coll.*).	E. Wilson, Esq. [P.].
f. Skeleton.	S. America.	Purchased.

17. Columba hodgsoni.

Columba hodgsonii, *Vig. P. Z. S.* 1832, p. 16; *G. R. Gr. Gen. B.* ii. p. 470, n. 20 (1844); *Blyth, J. A. S. B.* xiv. p. 867 (1845); *id. Ann. & Mag. N. H.* xix. p. 107 (1847); *G. R. Gr. Cat. Hodgs. Coll. Br. Mus.* p. 122 (1846); *Rchnb. Syn. Av. Novit.* Columbariæ, ff. 2578–79 (1851); *Hodgs. P. Z. S.* 1855, p. 126; *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 27 (1856); *Tytler, Ibis*, 1868, p. 202; *Gieb. Thes. Orn.* i. p. 744 (1872); *Tristr. Cat. Coll. B.* p. 37 (1889).
Columba nipalensis, *Hodgs. J. A. S. B.* v. p. 122 (1836); *G. R. Gr. Gen. B.* ii. p. 470, n. 22 (1844).
Dendrotreron hodgsoni, *Hodgs. in Gray's Zool. Misc.* p. 85 (1844); *Rchnb. Av. Syst. Nat.* p. xxv (1852); *Bp. Consp. Av.* ii. p. 43 (1854); *id. Compt. Rend.* xl. p. 218, n. 118 (1855); *id. Coup d'œil Ordr. Pig.* p. 56, n. 118 (1855); *id. Icon. Pig.* pl. 61 (1857); *Rchnb. Tauben*, i. p. 52, t. 222. ff. 2578–79 (1862); *G. R. Gr. Cat. Hodgs. Coll. Br. Mus.* 2nd ed. p. 67 (1863); *id. Hand-list*, ii. p. 233, n. 9242 (1870); *David, N. Arch. du Mus., Bull.* vii. *Cat.* p. 336 (1871); *Swinh. P. Z. S.* 1871, p. 397 (Moupin); *Hume, Nests and Eggs*, iii. p. 497 (1873); *David & Oust. Ois. Chine*, p. 381 (1877); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 276 (1890).
Alsocomus hodgsonii, *Blyth, Cat. B. Mus. A. S. B.* p. 233, n. 1410 (1849); *Irby, Ibis*, 1861, p. 233 (Kumaon); *Jerd. B. of Ind.* iii. p. 463 (1864); *Hume, Str. Feath.* viii. p. 109 (1879).

Dendrotreron nepalensis, *Bp. Compt. Rena* xxxix. p. 1104 (1854); *id. Coup d'œil Ordre Pig.* p. 20 (1855).
Stictœnas hodgsonii, *Schleg. Mus. P.-B.* Columbæ, p. 71 (1873).

Adult male. Head and upper part of the neck grey; feathers of the lower part of the hind neck acuminate, black, and with the apical portion grey; interscapular region and upper wing-coverts deep vinous chestnut, the median wing-coverts with white specks; lower back, rump, and upper tail-coverts lead-grey, darker on the latter, which are greyish black; lower fore neck, breast, and abdomen deep vinous chestnut; the feathers of the lower fore neck broadly edged with grey, those of the breast have narrow greyish-vinous edges, and those of the abdomen only two small greyish spots near the tips; flanks, vent, and under tail-coverts lead-grey; greater upper wing-coverts and the under wing-coverts also lead-grey; quills and primary-coverts blackish brown; tail slate-black: "bill purplish black; irides hoary: orbital space livid; legs and feet blackish green in front, yellow behind; claws pale yellow." Length about 15 inches, wing 9·3, tail 5·75, bill 0·67, tarsus 0·9.

Female. Similar to the male, but duller and smaller; the grey colour of the head less pale and clear, and the vinous-chestnut parts of the male dark grey.

Hab. From Cashmere, through the middle region of the Himalayas to Moupin.

a. ♂ ad. sk.	Cashmere (*Capt. S. Pinwill*).	Tweeddale Coll.
b. ♀ ad. sk.	Cashmere.	Hume Coll.
c, d. ♂ ♀ ad. sk.	N.W. Himalayas.	Capt. S. Pinwill [P.].
e. ♂ ad. sk.	Koteghur.	Hume Coll.
f. ♂ ad. sk.	Kumaon.	Hume Coll.
g, h, i. ♂ ♀ ad. sk.	Nepal.	B. H. Hodgson, Esq. [P.]. (Types of *Columba nipalensis*, Hodgs.)
k, l. ♂ ad. sk.	Nepal (*B. H. Hodgson*).	India Museum [P.].
m. ♂ ad. sk.	Nepal Valley.	Tweeddale Coll.
n. ♂ juv. sk.	Tonglo, Sikhim, 11,000 ft. (*F. D. Godman*).	Salvin-Godman Coll.
o–f'. ♂ ♀ ad. et imm. sk.	Native Sikhim, Jan.–June & Nov. (*L. Mandelli*).	Hume Coll.
g'. ♂ juv. sk.	Interior of Sikhim, June (*L. Mandelli*).	Hume Coll.
h', i', k'. ♂ ♀ ad. sk.	Darjeeling, April, Nov.	Hume Coll.
l', m', n'. ♂ ♀ ad. sk.	Bootan (*Pemberton*).	India Museum.
o'. ♂ ad. sk.	Moupin.	Seebohm Coll.
p'. ♀ ad. sk.	[Bombay] (*Sykes*)	India Museum [P.].

18. Columba arquatrix.

Rameron, *Levaill. Ois. d'Afr.* vi. p. 67, pl. 264 (1808).

Columba arquatrix, *Temm. & Knip, Pig.* i. fam. seconde, p. 11, pl. 5 (1808–13); *Temm. Hist. Pig. et Gallin.* i. pp. 93, 447 (S. Afr.) (1813); *Vieill. N. D.* xxv. p. 359 (1818); *Steph. Gen. Zool.* xi. 1, p. 19 (1819); *Vieill. Enc. Méth.* i. p. 379 (1823); *Steph. Gen. Zool.* xiv. 1, p. 280 (1826); *Desm. Dict. Sc. Nat.* xl. p. 318 (1826); *Wagl. Syst. Av.* Columba, sp. 50 (1827); *Less. Tr. d'Orn.* p. 469 (1831); *Rüpp. Neue Wirbelth.* p. 67 (Abyssinia) (1835–40); *G. R. Gr. Gen. B.* ii. p. 470, n. 8 (1844); *Rüpp. Syst. Uebers.* p. 100 (1845); *Rchnb. Syn. Av.* ff. 1251–52 (1847); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 32 (S. Africa) (1856); *Sundev. K. Svensk. Vet.-Akad. Handl.* 1857, p. 53, n. 264; *Gurn. Ibis*, 1860, p. 213 (Natal); *Monteiro, P. Z. S.* 1864, p. 18 (Benguela); *Layard, B. S. Afr.* p. 257 (1867); *Boc. Jorn. Ac. Sc. Lisb.* n. ii. p. 144 (1867); *Layard, Ibis*, 1869, p. 459 (var.); *Heugl. Orn. N.O.-Afr.* i. p. 825 (1871), ii. App. p. clxix (1871); *Gieb. Thes. Orn.* i. p. 746 (1872); *Ayres, Ibis*, 1876, p. 433; *Bocage, J. f. O.* 1876, p. 314; *Ayres, Ibis*, 1880, p. 109 (Transvaal); *Bocage, Orn. Angola*, p. 382 (1881); *Salv. Cat. B. Strickl. Coll.* p. 543 (1882); *Sclat. List Vert. An.* 8th ed. p. 447 (1883); *Ayres, Ibis*, 1885, p. 345 (Transvaal); *Bocage, Jorn. Sc. Lisb.* xii. p. 231 (Benguela and Angola) (1888); *Sousa, Jorn. Sc. Ac. Lisb.* (2) n. 1, p. 49 (1889); *Tristr. Cat. Coll. B.* p. 37 (1889); *Hartert, Kat. Vogelsamml.* p. 186 (1891).

Alsocomus arquatrix, *Blyth, Cat. B. Mus. A. S. B.* p. 232, n. 1409 (1849); *id. J. A. S. B.* xxiv. p. 260 (1855).

Stictœnas arquatrix, *Rchnb. Syst. Av. Nat.* p. xxv (1852); *Bp. Consp. Av.* ii. p. 59 (1854); *id. Compt. Rend.* xxxix. p. 1105 (1854); *id. Coup d'œil Ordre Pig.* p. 21 (1855); *id. Compt. Rend.* xliii. p. 948 (1856); *Rchnb. Tauben*, i. p. 59, t. 221. ff. 1251–52 (1862); *G. R. Gr. Hand-list*, ii. p. 234, n. 9260 (1870); *Schleg. Mus. P.-B.* Columbæ, p. 72 (1873); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 13 (1873); *Salvad. Ann. Mus. Civ. Gen.* (2) i. p. 207 (Shoa) (1884), vi. p. 303 (1888); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 276 (1890).

Columba arquatricula, *Bp. Mus. Lugd.* 1850; *Heugl. J. f. O.* 1862, p. 306; *Gieb. Thes. Orn.* i. 740 (1872).

Stictœnas arquatricula, *Bp. Consp. Av.* ii. p. 50 (1854); *id. Compt. Rend.* xxxix. p. 1105 (1854); *id. Coup d'œil Ordre Pig.* p. 21 (1855); *Rchnb. Tauben*, i. p. 59 (1862); *G. R. Gr. Hand-list*, ii. p. 234, n. 9263 (1870); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 276 (1890).

Strictœnas arquatrix, *Des Murs, Enc. d'Hist. Nat., Ois.* vi. p. 40 (1854 ?).

Stictœnas arquatrix *a.* arquatricula, *Bp. Compt. Rend.* xliii. p. 948 (1856).

Palumbus arquatrix, *Heugl. Syst. Ueb.* n. 507 (1856); *Shell. Ibis*, 1883, p. 283; *Sharpe, Layard's B. S. Afr.* p. 561 (1884); *Shell. Ibis*, 1893, p. 28 (Zomba).

Adult male. Front half of the pileum, cheeks, and neck dark vinous purple; back half of the pileum and occiput grey; the feathers on the back and sides of the neck have the black base partially showing through; upper back, smaller scapulars, and the inner half of the wing-coverts deep purple-chestnut, passing gradually on the re-

mainder of the wing-coverts into leaden grey; lesser scapulars and lesser and median wing-coverts spotted with white at the tip; lower back and rump deep slaty grey, shading into uniform black on the upper tail-coverts; breast slate-purple, with whitish spots at the tip of the feathers; between the base of the neck and the breast there is a band formed by the dark purple feathers, broadly edged with vinous purple; abdomen, under wing-coverts, and under tail-coverts slate-grey; quills brown-black; tail black: "iris greenish; feet, bill, and bare skin round the eyes yellow" (*Antinori*). Total length 14 inches, wing 9·25, tail 5·75, bill 0·75, tarsus 1.

Female. Somewhat smaller and duller in colour than the male; the vinous-purple colour of the neck more greyish.

Young. Head mingled with grey and purple; back brown; many feathers of the neck edged with ruddy.

Hab. From South Africa to Abyssinia on the east, and to Benguela and Angola on the west.

a. Ad. sk.	S. Africa.	Laugier Coll.
b, c, d. Ad. sk.	S. Africa.	J. Rocke, Esq. [P.].
e. Ad. sk.	S. Africa.	Earl of Derby [P.].
f. Ad. sk.	Cape of Good Hope.	Tweeddale Coll.
g. Ad. sk.	Kingwilliamstown.	Capt. Trevelyan [P.].
h. Ad. sk.	Kingwilliamstown.	Lieut. Anstey [P.].
i. ♀ ad. sk.	Rustenberg, Nov. (*T. Ayres*).	Gurney Coll.
k. Ad. sk.	Natal.	Shelley Coll.
l, m. ♂ ad. et ad. sk.	Burg Mountains, May (*Gordge*).	Shelley Coll.
n. ♂ juv. sk.	Pinetown, Sept. (*T. Ayres*).	Shelley Coll.
o, p. ♂ ♀ ad. sk.	Zomba, Nyassaland, Sept.	H. H. Johnston, Esq. [C.].
q. ♂ ad. sk.	Kilimanjaro, 10,000 ft.	H. H. Johnston, Esq. [C.].
r. Skeleton.	S. Africa.	Purchased *.

* I am not acquainted with the following variety:—

Columba arquatrix, var.?, *Boc. Jorn. Sc. Lisb.* xii. p. 82 (St. Thomas I.) (1887).

Columba arquatrix, var. thomensis, *Boc. Jorn. Sc. Lisb.* xii. pp. 230, 232 (St. Thomas I.) (1888).

Similar to *C. arquatrix*, but larger and showing the following differences:—1st, the forehead, sides of the head, and throat slate-ashy instead of vinous red; 2nd, the front part of the neck is like the back, and the breast of a dark uniform vinous-red tinge, while the same parts in *C. arquatrix* are of a pale vinous grey, with numerous purplish-black spots in the centre of the feathers (!); 3rd, the general colour is browner; 4th, the white spots on the wing-coverts and on the abdomen are smaller and more distant from each other. Length 14·93 inches, wing 9·04, tail 7, bill 0·78, tarsus 1·41. (*Translation.*)

Hab. Island of St. Thomas, W. Africa.

19. Columba leucocephala.

Columba capite albo, *Sloane, Voy. Jam.* ii. p. 303, t. 261. f. 2 (1705–25); *Catesb. Carol.* i. p. 25, t. 25 (1754).

Columba saxatilis jamaicensis, *Briss. Orn.* i. p. 137 (1760).

Columba leucocephala, *Linn. S. N.* i. p. 281, n. 14 (1766); *Gm. S. N.* i. 2, p. 772, n. 14 (1788); *Lath. Ind. Orn.* ii. p. 594, n. 5 (1790); *Bonn. Tabl. Enc. Méth.* p. 235 (1790); *Temm. & Knip, Pig.* i. fam. seconde, pl. 13 (1808–11); *Temm. Pig. et Gallin.* pp. 204, 459 (1813); *Vieill. N. D.* xxvi. p. 367 (1818); *Steph. Gen. Zool.* xi. p. 36 (1819); *Vieill. Gal. des Ois.* i. p. 331, pl. 194 (1825); *Bp. J. A. N. S. Philad.* v. p. 30 (1825); *Steph. Gen. Zool.* xiv. p. 291 (1826); *Desm. Dict. Sc. Nat.* xl. p. 326 (1826); *Wagl. Syst. Av.* Columba, sp. 52 (1827); *Vig. Zool. Journ.* iii. p. 446 (Cuba) (1828); *Bp. Am. Orn.* ii. p. 11, pl. 17. f. 1 (1828); *Wagl. Isis*, 1829, p. 744; *Cuv. Règn. An.* 2nd ed. i. p. 491 (1829); *Less. Tr. d'Orn.* p. 469 (1831); *Nutt. Man. Orn.* i. p. 625 (1832); *Wils. & Bp. Am. Orn.* iii. p. 467, pl. 17. f. 1 (1832); *Aud. Orn. Biogr.* ii. p. 443, v. p. 557, pl. 177 (1834); *Less. Compl. de Buff., Ois.* viii. p. 102 (1837); *id. op. cit.* 2nd ed. p. 297 (1838); *D'Orb. in La Sagra's Hist. Nat. Cuba, Orn.* p. 171 (large ed. p. 126) (1839); *Aud. Birds Am.* iv. p. 315, pl. 280 (1843); *G. R. Gr. Gen. B.* ii. p. 470, n. 5 (1844); *Gulliv. P. Z. S.* 1844, p. 10; *Denny, P. Z. S.* 1847, p. 38; *Gosse, B. Jam.* p. 299 (1847); *Rchnb. Syn. Av.* ff. 1257–58 (1847); *id. op. cit. Novit.* Columbariæ, ff. 2863–64 (1851); *Gosse, Nat. Sqj. in Jam.* p. 173 (1851); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 29 (1856); *Sallé, P. Z. S.* 1857, p. 235; *Baird, B. N. Am.* p. 599 (1858); *Moore, P. Z. S.* 1859, p. 61; *Scl. & Salv. Ibis*, 1859, p. 222 (Keys); *Marsh, Pr. Ac. Nat. Sc. Philad.* 1863, p. 301; *Tayl. Ibis*, 1864, p. 171 (Porto Rico); *Salv. Ibis*, 1864, pp. 374, 380, 382 (British Honduras); *Bryant, Pr. Bost. Soc. Nat. Hist.* xi. p. 96 (1866); *Baird, Ibis*, 1867, p. 276; *Sundev. Œfv. K. Vet.-Akad. För.* 1869, pp. 585, 600; *Sclat. P. Z. S.* 1869, p. 627; *Gieb. Thes. Orn.* i. p. 745 (1872); *Pelz. Ibis*, 1873, p. 34; *Schleg. Mus. P.-B.* Columbæ, p. 68 (Panama!) (1873); *Garrod, P. Z. S.* 1873, p. 468; *Sclat. & Salv. Nomencl. Av. Neotrop.* p. 132 (1873); *Baird, Brew., & Ridgw. Hist. N. Am. B.* iii. p. 303 (1874); *Gulliv. P. Z. S.* 1875, p. 489; *Lawr. Pr. U. S. Nat. Mus.* i. p. 487 (1878); *Schmidt, P. Z. S.* 1880, p. 314; *Cory, B. Bahama Isl.* p. 137 (1880); *A. & E. Newt. Handb. Jam.* p. 114 (1881); *Cory, Bull. Nutt. Orn. Club*, vi. p. 154 (1881); *Maynard, Birds E. N. Am.* p. 333 (1881); *Salv. Cat. B. Strickl. Coll.* p. 542 (1882); *Sclat. List Vert. An.* 8th ed. p. 447 (1883); *Coues, Key N. Am. B.* p. 565 (1884); *Salv. Ibis*, 1885, p. 193 (I. of Cozumel); *Cory, B. Haiti and San Domingo*, p. 134 (1885); *id. List B. W. Ind.* p. 23 (1885); *id. Auk*, 1887, p. 108; *Ridgw. Man. N. Am. Birds*, p. 212 (1887); *id. Pr. U.S. Nat. Mus.* x. p. 577 (1887); *Cory, B. W. Ind.* p. 209 (1889); *Salv. Ibis*, 1889, p. 377 (Cozumel I., Ruatan I.), 1890, p. 89; *Hartert, Kat. Vogelsamml.* p. 186 (1891); *Cory, Auk*, 1892, pp. 48 (Maraguana), 272 (Cuba); *Scott, Auk*, 1892, pp. 122 (Jamaica), 212 (Florida); *Bendire, Life Hist. N. Am. Birds*, p. 131 (1892); *Chapm. Bull. Am. Mus. N. H.* iv. p. 291 (1892).

White-crowned Pigeon, *Lath. Syn.* ii. 2, p. 616, n. 5 (1783).

Patagiœnas leucocephala, *Rchnb. Av. Syst. Nat.* p. xxv (1852); *Bp. Consp. Av.* ii. p. 54 (1854); *id. Compt. Rend.* xxxix. p. 1110 (1854), xl. p. 218, n. 152 (1855); *id. Coup d'œil Ordre Pig.* pp. 26, 56, n. 152 (1855); *Cab. & Gundl. J. f. O.* 1856, p. 107; *Burm. Syst.*

Uebers. Th. Bras. iii. p. 293 (1856); *Brewer, Pr. Bost. Soc. Nat. Hist.* vii. p. 307 (1860); *Sclat. P. Z. S.* 1861, p. 80; *Albrecht, J. f. O.* 1862, p. 204; *Rchnb. Tauben*, i. p. 64, t. 223. ff. 1257–58, t. 255. ff. 2863–64 (1862), ii. p. 172 (1862); *Gundl. Repert. Fisico-Nat. Cuba*, i. p. 298 (1866); *G. R. Gr. Hand-list*, ii. p. 234, n. 9257 (1870); *Sousa, Nac. Mus. Lisb.* Columbæ, p. 14 (1873); *Gundl. J. f. O.* 1874, p. 288; *id. Anal. Soc. Esp. Hist. Nat.* vii. p. 345 (1878); *id. J. f. O.* 1878, pp. 161, 186.

Patagiœnas leucocephalus, *A. & E. Newt. Ibis*, 1859, p. 253 (St. Croix).

Patagœnas leucocephala, *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 276 (1890).

Adult male. Dark plumbeous, somewhat lighter below; entire top of head white, margined behind with plumbeous; nape dark maroon, below it a cape extending upon the sides of the neck of bronzy green, each feather distinctly bordered with velvety black; back with slight bluish reflections; quills slate-black, edged with a very narrow whitish line; tail uniform slate-black: "bill dirty greenish white, with the soft part dark carmine; feet dull red, with carmine-red scales; naked skin round the eyes powdered with white, edge of the eyelids dark red; iris dull yellow, with a brown tinge" (*Gundlach*), or "almost white, with the faintest tinge of straw-colour" (*Scott*). Total length about 14 inches, wing 7·8, tail 5·5, bill 0·78, tarsus 1·3.

Female. Similar to the male, but somewhat smaller and duller, and with the top of the head, at least in some specimens, tinged with dirty grey.

Immature birds have the white of the top of the head tinged with dull greyish.

Young. Greyish brown, whitish on the forehead: "iris brown" (*Gundlach*).

Hab. Greater Antilles, Bahamas, and Florida Keys; also Santa Cruz, St. Bartholomew, Cozumel Islands, and coast of Honduras.

a. Ad. sk.	N. America.	Audubon Coll.
b. Ad. sk.	N. America.	Earl of Sussex [P.].
c. ♂ imm. sk.	Punta Rassa, Florida, Aug. (*Atkins*).	Salvin-Godman Coll.
d, e. ♀ juv. sk.	Key West, Florida, Oct. (*Atkins*).	Salvin-Godman Coll.
f. ♂ ad. sk.	San Cristobal, Cuba, May.	Salvin-Godman Coll.
g. ♂ ad. sk.	Cuba, Feb.	Salvin-Godman Coll.
h. Imm. sk.	Remedios, Cuba, Feb. (*Bishop*).	Smithsonian Institution [P.].
i, k, l. Ad. et imm. sk.	Spanish Town, Jamaica, May, April (*March*).	Salvin-Godman Coll.
m. ♂ ad. sk.	Midgeham, Jamaica, June (*W. Osburn*).	Salvin-Godman Coll.
n, o. Ad. st.	Jamaica.	Cuming Coll.
p. Ad. st.	Jamaica.	Purchased.
q, r, s. ♀ ad. sk.	San Domingo, Jan., April (*C. B. Cory*).	Salvin-Godman Coll.
t. Ad. sk.	San Domingo.	Cuming Coll.

u, *v*. ♂ ad. sk.	Antiqua, April, June (*C. B. Cory*).	Salvin-Godman Coll.
w, *x*. Ad. sk.	Cozumel Is., Yucatan, April, Jan. (*E. C. Devis*).	Salvin-Godman Coll.
y–*d'*. Ad. et imm. sk.	Cozumel Is., Yucatan (*G. F. Gaumer*).	Salvin-Godman Coll.
e', *f'*. ♂ ad. et ♀ juv. sk.	British Honduras (*O. S.*).	Salvin-Godman Coll.
g'–*p'*. Ad. et imm. sk.	Ruatan Isl., Bay of Honduras (*G. F. Gaumer*).	Salvin-Godman Coll.
q'. Skeleton.	[N. America.]	Purchased.

20. Columba squamosa.

Columba corensis, *Temm.* (*nec Jacq.*) *Pig. et Gallin.* i. pp. 211, 461 (1813); *Steph. Gen. Zool.* xi. p. 5 (1819), xiv. 1, p. 294 (1826); *Desm. Dict. Sc. Nat.* xl. p. 326 (1826); *Less. Compl. de Buff., Ois.* viii. p. 100 (1837); *id. op. cit.* 2nd ed. p. 297 (1838); *G. R. Gr. Gen. B.* ii. p. 470, n. 26 (1844); *id. List B. Brit. Mus.* Columbæ, p. 30 (1856); *Sallé, P. Z. S.* 1857, p. 235; *A. & E. Newt. Ibis*, 1859, p. 252 (St. Croix); *Cass. Pr. Ac. Nat. Sc. Philad.* 1860, p. 377; *E. C. Tayl. Ibis*, 1864, pp. 94, 171 (Dominica, Porto Rico); *Bryant, Pr. Bost. Soc. Nat. Hist.* xi. p. 96 (1866); *Sundev. Œfv. K. Vet.-Akad. Förh.* 1869, p. 601; *Gieb. Thes. Orn.* i. p. 742 (1872); *Schleg. Mus. P.-B.* Columbæ, p. 68 (1873); *Sclat. & Salv. Nomencl. Av. Neotrop.* p. 132 (1873); *Baird, Brew., & Ridgw. Hist. N. Am. Birds*, iii. p. 360 (1874); *Gulliv. P. Z. S.* 1875, p. 489; *Lawr. Pr. U.S. Nat. Mus.* i. pp. 196, 487 (1878); *Sclat. P. Z. S.* 1879, p. 765 (Montserrat); *Lister, Ibis*, 1880, p. 42 (St. Vincent); *Allen, Bull. Nutt. Orn. Club*, v. p. 169 (1880); *Grisdale, Ibis*, 1882, p. 492 (Montserrat); *Salv. Cat. B. Strickl. Coll.* p. 542 (1882); *Sclat. List Vert. An.* 8th ed. p. 447 (1883); *Cory, Birds Haiti and San Domingo*, p. 136 (1885); *id. List Birds W. Ind.* i. p. 23 (1885); *Wells, Pr. U.S. Nat. Mus.* 1886, p. 624 (Grenada); *id. List B. Grenada*, p. 6 (1886); *Cory, Auk*, 1887, p. 109; *id. B. W. Ind.* p. 210 (1889); *Sclat. P. Z. S.* 1889, p. 395 (St. Lucia); *Hartert, Bull. Br. Orn. Club*, iii. p. xii (1892) (Bonaire); *Chapm. Bull. Am. Mus. N. H.* iv. p. 291 (1892).

Columba squamosa, *Bonn. Tabl. Enc. Méth.* i. p. 234 (Guadaloupe) (1790).

Columba portoricensis, *Temm. & Knip, Pig.* i. fam. seconde, p. 41, pl. 15 (1808–11); *Less. Tr. d'Orn.* p. 469 (1831); *D'Orb. in La Sagra's Hist. Nat. Cuba, Ois.* p. 172 (large ed. p. 127), pl. 27 (1839); *Rchnb. Syn. Av. Novit.* Columbariæ, f. 2581 (1847).

Columba monticola, *Vieill. N. D.* xxvi. p. 355 (1818).

Columba imbricata, *Wagl. Syst. Av.* Columba, sp. 48 (1827).

Patagioenas corensis, *Bp. Consp. Av.* ii. p. 54 (1854); *id. Compt. Rend.* xxxix. p. 1110 (1854), xl. p. 218, n. 153 (1855); *id. Coup d'œil Ordre Pig.* pp. 26, 56, n. 153 (1855); *id. Compt. Rend.* xliii. p. 839 (1856); *Cab. J. f. O.* 1856, p. 108; *Brewer, Pr. Bost. Soc. Nat. Hist.* vii. p. 307 (1860); *Rchnb. Tauben*, i. p. 64, t. 222. f. 2581 (1862), ii. p. 172 (1862); *Gundl. Repert. Fisico-Nat. Cuba*, i. p. 299 (1866); *G. R. Gr. Hand-list*, ii. p. 234, n. 9258 (1870); *Gundl. J. f. O.* 1874, p. 289; *id. Anal. Soc. Esp. Hist. Nat.* vii. p. 344 (1878); *id. J. f. O.* 1878, pp. 161, 186.

Patagioenas imbricata, *Burm. Syst. Uebers. Th. Bras.* iii. p. 294 (1856).

Adult male. Head, neck, and crop-region rich vinous; nape and a cape extending upon the sides of the neck metallic violet, each feather distinctly bordered with velvety maroon; rest of the plumage dark plumbeous, scarcely paler below; quills with narrow light edges, especially at the tip; tail dark slate-colour: "bill bright lake, yellowish white at the tip of both mandibles; skin round the eyes nearly bare and of a dull red, with a little fine yellow bloom upon it; iris with the inner ring scarlet, the outer and narrower one golden yellow; legs and feet lake; claws dark horn-colour" (*Newton*). Total length about 14 inches, wing 8·5, tail 6, bill 0·62, tarsus 1·08.

Female. Similar to the male, but somewhat smaller and perhaps duller.

Young. Brown, with the tips of the feathers rufous chestnut.

Hab. Antilles (except Jamaica and Bahamas)—Cuba, Porto Rico, St. Croix, Montserrat, Dominica, St. Lucia, St. Vincent, Grenadines, Grenada, and Bonaire.

a. ♂ ad. sk.	Monte Verdi, Cuba, May (*C. Wright*).	Smithsonian Institution [P.].
b. ♂ ad. sk.	Monte Verdi, Cuba, April (*C. Wright*).	Salvin-Godman Coll.
c. Ad. sk.	San Cristobal, Cuba (*G. F. Gaumer*).	Salvin-Godman Coll.
d. ♂ ad. sk.	Cuba.	Salvin-Godman Coll.
e. Ad. sk.	Hayti (*J. Hearne*).	Zoological Society's Coll.
f, g. Ad. sk. et st.	San Domingo.	Sallé Coll.
h. Ad. sk.	Montserrat, W. Indies (*Sturge*).	Salvin-Godman Coll.
i, k. ♂ ad. sk.	Dominica, W. Indies (*F. A. Ober*).	Salvin-Godman Coll.
l. ♂ ad. sk.	St. Lucia, March (*Ramage*).	West-India Commission [P.].
m. Juv. sk.	St. Vincent, W. Indies, Sept. (*D. W. Smith*).	Salvin-Godman Coll.
n, o. ♀ ad. et ad. sk.	Mustique Grenadine, W. Indies, June (*D. W. Smith*).	Salvin-Godman Coll.
p, q, r. ♀ ad. et ad. sk.	Grenada, W. Indies, April May (*Mrs. H. H. & D. W. Smith*).	Salvin-Godman Coll.

21. Columba speciosa.

Pigeon ramier de Cayenne, *D'Aubent. Pl. Enl.* 213.
Ramiret, *Buff. Hist. Nat. Ois.* ii. p. 541 (1771).
Scallop-necked Pigeon, *Lath. Syn.* ii. 2, p. 643, n. 39 (1783).
Columba speciosa, *Gm. S. N.* i. p. 783, n. 58 (1788); *Lath. Ind. Orn.* ii. p. 605, n. 45 (1790); *Bonn. Tabl. Enc. Méth.* i. p. 245, pl. 80. f. 2 (1790); *Temm. & Knip, Pig.* i. fam. seconde, p. 39, pl. 14 (1808–

11); *Temm. Pig. et Gallin.* i. pp. 208, 460 (1813); *Vieill. N. D.* xxvi. p. 364 (1818); *Steph. Gen. Zool.* xi. p. 41 (1819); *Wied, Reise nach Bras.* i. p. 251 (1820); *Steph. Gen. Zool.* xiv. p. 286 (1826); *Desm. Dict. Sc. Nat.* xl. p. 326 (1826); *Wagl. Syst. Av.* Columba, sp. 63 (1827); *Less. Tr. d'Orn.* p. 469 (1831); *Wied, Beitr.* iv. p. 447 (1832); *Less. Compl. de Buff., Ois.* viii. p. 100 (1837); *id. op. cit.* 2nd ed. p. 296 (1838); *G. R. Gr. Gen. B.* ii. p. 470, n. 11 (1844); *Rchnb. Syn. Av.* ff. 1253–54 (1847); *Schomb. Reise*, iii. p. 743 (1848); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 32 (1856); *Sclat. & Salv. Ibis*, 1859, p. 222; *Sclat. P. Z. S.* 1860, p. 291 (Esmeraldas); *Sclat. & Salv. P. Z. S.* 1864, p. 371; *iid. P. Z. S.* 1867, pp. 590 (Para), 753 (Chyavetas); *Salv. P. Z. S.* 1870, p. 217 (Veragua); *Gieb. Thes. Orn.* i. p. 751 (1872); *Sclat. & Salv. Nomencl. Av. Neotrop.* p. 132 (1873); *iid. P. Z. S.* 1873, p. 306 (Chamicuros), 1879, p. 543 (Remedios); *Forbes, Ibis*, 1881, p. 318; *Salv. Cat. B. Strickl. Coll.* p. 543 (1882); *Sclat. List Vert. An.* 8th ed. p. 448 (1883); *Tacz. & Berl. P. Z. S.* 1885, p. 119; *Tacz. Orn. Per.* iii. p. 231, Tables, p. 101 (1886); *Salv. Ibis*, 1886, p. 173 (British Guiana); *Zeledon, Ann. Mus. Nac. Costa Rica*, 1887, p. 127, n. 582 (Costa Rica?); *Allen, Bull. Am. Mus. N. H.* ii. p. 105 (1889) (Bolivia); *Riker & Chapm. Auk*, viii. p. 161 (Santarem) (1891); *Hartert, Kat. Vogelsamml.* p. 186 (1891).

Ectopistes? speciosa, *Sw. Zool. Journ.* iii. p. 362 (1828).

Peristera speciosa, *Hartl. Syst. Verz.* p. 99 (1844).

Lepidœnas speciosa, *Rchnb. Av. Syst. Nat.* p. xxv (1852); *Bp. Consp. Av.* ii. p. 54 (1854); *id. Compt. Rend.* xxxix. p. 1110 (1854), xl. p. 218, n. 155 (1855); *id. Coup d'œil Ordre Pig.* pp. 26, 56, n. 155 (1855); *Moore, P. Z. S.* 1859, p. 61 (Peten, Guatemala); *Lawr. Ann. Lyc. N. Y.* vii. p. 301 (1862); *Rchnb. Tauben*, i. p. 66, t. 223. ff. 1253–54 (1862), ii. p. 172 (1862); *Pelz. Orn. Bras.* pp. 274, 450 liv (1868); *G. R. Gr. Hand-list*, ii. p. 234, n. 9564 (1870); *Schleg. Mus. P.-B.* Columbæ, p. 70 (1873); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 14 (1873); *Tacz. P. Z. S.* 1874, p. 555 (Central Peru); *Sumichrast, Naturaleza*, v. p. 231, n. 25 (1881); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 276 (1890)

Peristera spilodera, *G. R. Gr. MS.*; *Bp. Compt. Rend.* xli. p. 659 (1855).

Chlorœnas spilodera, *Bp. Consp. Av.* ii. p. 52 (1854); *id. Compt. Rend.* xxxix. p. 1109 (1854), xl. p. 218, n. 148 (1855); *id. Coup d'œil Ordre Pig.* pp. 25, 56, n. 148 (1855); *id. Compt. Rend.* xliii. p. 838 (=speciosa, jun.) (1856).

Patagiœnas speciosa, *Burm. Syst. Ueb. Th. Bras.* iii. p. 293 (1856).

Chlorœnas speciosa, *Sclat. P. Z. S.* 1856, p. 309 (Cordova, S. Mexico).

Adult male. Head chestnut vinous; back, rump, and smaller upper wing-coverts maroon, with a purple tinge; feathers of the neck regularly margined with dark metallic green, more or less with violet or amethystine reflections, producing a regular scaly appearance, on the upper part each feather has a white spot near the margin; on the lower hind neck the white spots are wanting and the feathers are chestnut in the middle; breast dull vinous, with darker edges to the feathers; middle of the abdomen, vent, and under tail-coverts white, the feathers edged with dusky; quills brown, the primaries with narrow lighter edges; under wing-coverts

greyish brown, more or less tinged with vinous; longer upper tail-coverts brown; tail brown-black: bill and feet yellowish; iris dark brown. Total length about 12 inches, wing 7·25, tail 4·25, bill 0·8, tarsus 0·95.

Female. Differs from the male in being much duller, and principally in having the back, rump, and smaller wing-coverts brown, with no maroon colour.

Young. Browner on the upper parts, which are greyish brown; on the neck each feather is edged with brown-black and has a pale spot in the middle; underparts whitish, the feathers edged with dusky; the wing-coverts have narrow pale edges.

Hab. Mexico and through Central America to Colombia, Guiana, Brazil, and Peru.

a. ♀ juv. sk.	S. Lorenzo (Canton de Cordova), Mexico, June (*Ferrari-Perez*).	Salvin-Godman Coll.
b. ♂ imm. sk.	Vera Cruz, Nov.	Tweeddale Coll.
c, d. ♂ ♀ ad. sk.	Tizimin, N. Yucatan, May, June (*G. F. Gaumer*).	Salvin-Godman Coll.
e. ♂ ad. sk.	Guadalupe Sakluck, Guatemala, April (*O. S.*).	Salvin-Godman Coll.
f. ♀ ad. sk.	La Libertad, Nicaragua, July (*W. B. Richardson*).	Salvin-Godman Coll.
g, h. ♂ ♀ ad. sk.	Volcan de Chiriqui (*Arcé*).	Salvin-Godman Coll.
i. ♀ ad. sk.	Bugaba, Chiriqui (*Arcé*).	Salvin-Godman Coll.
k. ♂ imm. sk.	Chiriqui (*Arcé*).	Salvin-Godman Coll.
l. ♂ ad. sk.	Lion Hill, Isthmus of Panama (*McLeannan*).	Salvin-Godman Coll.
m. ♂ ad. sk.	Remedios, U.S. of Columbia (*T. K. Salmon*).	Salvin-Godman Coll.
n. Imm. sk.	Vicinity of Bogota (*Bowman*).	Salvin-Godman Coll.
o. Ad. sk.	Balzar Mts., Ecuador (*Illingworth*).	Salvin-Godman Coll.
p, q. ♂ ♀ ad. sk.	Sarayacu, Ecuador (*Buckley*).	Salvin-Godman Coll.
r. ♂ imm. sk.	Bartica Grove, Brit. Guiana, Feb. (*H. Whitely*).	Salvin-Godman Coll.
s. ♀ ad. sk.	Roraima, Brit. Guiana, Jan. (*H. Whitely*).	Salvin-Godman Coll.
t. Ad. st.	British Guiana.	R. Schomburgk, Esq. [P.].
u. Ad. sk.	Para, Lower Amazons (*Wallace*).	Salvin-Godman Coll.
v, w. Ad. et imm. sk.	Bahia, Brazil (*Wucherer*).	Salvin-Godman Coll.
x. ♂ ad. sk.	Engenho do Gama, Brazil, Aug. (*Natterer*).	Salvin-Godman Coll.
y, z. ♂ ad. sk.	Chapada, Matto Grosso, Brazil, Feb., Aug. (*H. Smith*).	Salvin-Godman Coll.
a'. Ad. st.	Brazil.	Purchased.

b'. Juv. sk.	S. America.	Purchased.
c'. Juv. sk.	S. America.	Purchased. (Type of *Peristera spilodera*, G. R. Gr.)
d'. Ad. st.		Zool. Soc. Coll.

22. Columba inornata.

Columba inornata, *Vig. Zool. Journ.* iii. p. 446 (Cuba) (1828); *Wagl. Isis*, 1829, p. 744; *Less. Compl. de Buff., Ois.* viii. p. 101 (1837); *id. op. cit.* 2nd ed. p. 297 (1838); *D'Orb. in La Sagra's Hist. Nat. Cuba, Ois.* p. 173 (large ed. p. 127), pl. 28 (1839); *G. R. Gr. Gen. B.* ii. p. 470, n. 31(1844); *Denny, P. Z. S.* 1847, p. 39; *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 34 (1856); *Marsh, Pr. Ac. Nat. Sc. Philad.* 1863, p. 301; *Gundl. J. f. O.* 1870, p. 282; *Gieb. Thes. Orn.* i. p. 744 (1872); *Sclat. & Salv. Nomencl. Av. Neotrop.* p. 132 (1873); *Baird, Brew., & Ridgw. Hist. N. Am. Birds*, iii. p. 360 (1874); *A. & E. Newt. Handb. Jam.* p. 114 (1881); *Salv. Cat. B. Strickl. Coll.* p. 543 (1882); *Sclat. List Vert. An.* 8th ed. p. 449 (1883); *Cory, B. Haiti & San Domingo*, p. 136 (1885); *id. List B. W. Ind.* p. 23 (1885); *id. Auk*, 1887, p. 110; *id. B. W. Ind.* p. 211 (1889); *Scott, Auk*, 1892, p. 122.

Columba rufina, *Gosse* (*nec Temm.*), *B. Jam.* p. 296 (1847); *id. Nat. Soj. in Jam.* p. 173 (1851).

Carpophaga? inornata, *Rchnb. Syn. Av. Novit.* Columbariæ, f. 2582 (1851).

Chlorœnas inornata, *Bp. Consp. Av.* ii. p. 53 (1854); *id. Compt. Rend.* xxxix. p. 1108 (1854), xl. p. 218, n. 149 (1855); *id. Coup d'œil Ordr. Pig.* pp. 25, 56, n. 149 (1855); *Gundl. & Cab. J. f. O.* 1856, p. 106 (Cuba); *Brewer, Pr. Bost. Soc. Nat. Hist.* vii. p. 307 (1860); *Sclat. P. Z. S.* 1861, p. 80 (Jamaica); *Rchnb. Tauben*, i. p. 62, t. 222. f. 2582 (1862), ii. p. 172 (1862); *Albrecht, J. f. O.* 1862, p. 204; *Gundl. Repert. Fisico-Nat. Cuba*, i. p. 298 (1866); *G. R. Gr. Hand-list*, ii. p. 235, n. 9274 (1870); *Schleg. Mus. P.-B.* Columbæ, p. 78 (1873); *Gundl. J. f. O.* 1874, pp. 286, 312; *id. Anal. Soc. Esp. Hist. Nat.* vii. p. 343 (1878); *id. J. f. O.* 1878, pp. 161, 185.

Adult male. Head, neck, and underparts vinous purple; chin more or less whitish; mantle, scapulars, wing-coverts (except the median ones), and inner secondaries brown-grey; lower back, rump, upper and under tail-coverts, sides, and under surface of the wings plumbeous; median wing-coverts tinged with chestnut; anterior upper wing-coverts and the greater ones conspicuously edged with white; primaries greyish brown, with narrow light edges to the outer webs; tail rounded, dark plumbeous grey: bill black, "horn-colour; legs (and feet) carmine-red; iris with an inner ring plumbeous, an outer one ochre-yellow, and between the two a brownish tinge: edges of the eyelids and naked skin round the eyes carmine-red" (*Gundlach*). Total length about 14·5 inches, wing 8·75, tail 6, bill 0·8, tarsus 1·15.

Female. Similar to the male, only somewhat smaller and duller.

Some adult specimens show a slight reddish tinge towards the tips of the under tail-coverts.

Young. "Head, neck, and underparts have an ochreous tinge

instead of vinous purple; the wing-feathers are edged with ochreous" (*Gundlach*).

Hab. Greater Antilles.

a. Ad. sk.	Spanishtown, Jamaica (*W. T. March*).	Smithsonian Institution [P.].
b, *c*. ♂ ad. sk.	Spanishtown, Jamaica, Feb. (*W. T. March*).	Salvin-Godman Coll.
d. Ad. sk.	Jamaica (*Gosse*).	
e. ♀ ad. sk.	Jamaica (*W. Osburn*).	Salvin-Godman Coll.
f. Ad. sk.	San Domingo.	Purchased.
g. Ad. st.	Cuba.	Gould Coll. (Type of species?)

23. Columba flavirostris.

Columba flavirostris, *Wagl. Isis*, 1831, p. 519; *Bp. P. Z. S.* 1837, p. 113; *G. R. Gr. Gen. B.* ii. p. 470, n. 18 (1844); *Lawr. Ann. Lyc. N. Y.* v. p. 116 (1851); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 34 (1856); *Baird, B. N. Am.* p. 598, pl. 61 (1858); *id. Mex. Bound.* ii. *Birds*, p. 21, pl. 23 (1859); *Sclat. P. Z. S.* 1859, pp. 369, 391; *Tayl. Ibis*, 1860. p. 226 (Honduras); *Sclat. P. Z. S.* 1864, p. 178; *Dress. Ibis*, 1865, p. 313, 1866, p. 23 (Southern Texas); *Cooper, Orn. of Calif.* p. 508 (1820); *Grayson, Pr. Bost. Soc. N. H.* xiv. p. 275 (1871); *Gieb. Thes. Orn.* i. p. 743 (1872); *Sclat. & Salv. Nomencl. Av. Neotrop.* p. 132 (1873); *Lawr. Mem. Bost. Soc. N. H.* ii. p. 304 (1874); *Baird, Brew., & Ridgw. Hist. N. Am. Birds*, iii. p. 366 (1874); *Lawr. Bull. U.S. Nat. Mus.* n. 4, p. 44 (1876); *Sanchez, An. Mus. Nac. Mex.* i. p. 104, n. 487 (1878); *Sumichrast, Naturaleza*, v. p. 231, n. 27 (1881); *Salv. P. Z. S.* 1883, p. 428; *Boucard, P. Z. S.* 1883, p. 458; *A. O. U. Check-list N. Am. Birds*, p. 179 (1886); *Zeledon, Ann. Mus. Nat. Costa Rica*, 1887, p. 127, n. 578 (Costa Rica); *Tristr. Cat. Coll. B.* p. 37 (1889); *Bendire, Life-Hist. N. Am. Birds*, p. 128 (1892).

Columba erythrina, *Licht. Mus. Berol. fide Bp. Consp. Av.* ii. p. 52 (1854); *id. Compt. Rend.* xxxix. p. 1108 (1854); *id. Coup d'œil Ordr. Pig.* p 24 (1855); *id. Compt. Rend.* xliii. p. 838 (1856); *Ridgw. Pr. U.S. Nat. Mus.* iii. p. 9 (1880); *Coues, Check-list N. Am. Birds*, 2nd ed. p. 91 (1882); *id. Key N. Am. Birds*, 2nd ed. p. 565 (1884).

Columba dorsalis, *G. R. Gr. List Gallinæ Brit. Mus.* p. 9 (1844).

? Columba solitaria, *McCall, Pr. Ac. Nat. Sc. Phil.* iii. p. 23 (1847) (Rio Grande, Texas); *Bp. Consp. Av.* p. 53 (1854); *id. Compt. Rend.* xliii. p. 838 (1856); *Baird, B. N. Am.* p. 598 (1858); *Dress. Ibis*, 1866, p. 23 (S. Texas); *Ridgw. Pr. U.S. Nat. Mus.* iii. p. 9 (1880)*.

Chlorœnas flavirostris, *Bp. Consp. Av.* ii. p. 52 (1854); *id. Compt. Rend.* xxxix. p. 1108 (1854), xl. p. 218, n. 145 (1855); *id. Coup d'œil Ordr. Pig.* pp. 24, 56, n. 145 (1855); *Sclat. P. Z. S.* 1856, p. 309 (Cordova); *Salv. Ibis*, 1861, p. 355 (Guatemala); *Rchnb. Taub.* i. p. 61 (1862), ii. p. 171, t. ii. f. 20 (1862); *Lawr. Ann. Lyc. N. Y.* ix. p. 134 (1868) (Costa Rica); *Frantz. J. f. O.* 1869, p. 370; *G. R. Gr. Hand-list*, ii. p. 235, n. 9272 (1870); *Schleg. Mus. P.-B.* Columbæ, p. 78 (1873); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 14 (1873); *Heine & Rchnw. Nomencl. Mus. Hein. Orn.* p. 277 (1890).

* *Columba solitaria*, McCall, is scarcely to be identified with the present species (*Ridgway*).

Adult male. Head, neck, and breast dark vinous purple; no metallic scales on neck; upper back, scapulars, and tertials brown with a slight bronze gloss; lower back, rump, upper and under tail-coverts, vent, and flanks lead-grey; smaller and middle wing-coverts purple-chestnut; outer and under wing-coverts lead-grey, the greater ones with narrow whitish edges; quills blackish brown, with lighter edgings; tail dark slate-grey, almost black: "bill coral-red at base and for rather more than two-thirds of its length, the tip being whitish (in dry skins yellow); iris bright orange; the bare space round the eye and legs coral-red" (*Dresser*). Length about 14 inches, wing 7·50–8, tail 4·75, bill 0·56, tarsus 0·87.

Female. Similar to the male, but duller and more dilute in colour, the vinous red and lead-grey more ashy.

Young. Differs in being much duller; head, neck, and breast brown tinged with reddish; patch on the median wing-coverts rufous chestnut.

Hab. Southern border of the United States, from Arizona and the Rio Grande Valley south to Costa Rica.

a–g. ♂ ♀ ad. sk.	Brownsville, Texas, March, April (*Armstrong*).	Salvin-Godman Coll.
h, i, k. ♂ ad. et ad. sk.	Hidalgo, Texas, April (*Armstrong*).	Salvin-Godman Coll.
l. Ad. sk.	Matamoros, Mexico, August.	Salvin-Godman Coll.
m, n, o. ♂ ad. sk.	Los Escobas, N. Leon, Mexico, April, May (*Armstrong*).	Salvin-Godman Coll.
p. ♂ ad. sk.	Santa Ingracia, N. Leon, May (*Armstrong*).	Salvin-Godman Coll.
q. ♀ ad. sk.	Hadadi, Santa Ingracia, N. Leon, May (*Armstrong*).	Salvin-Godman Coll.
r. ♂ ad. sk.	Hadadi, Los Trevinos, N. Leon, May (*Armstrong*).	Salvin-Godman Coll.
s, t. ♂ ad. sk.	Villa Grande, N. Leon, May (*Armstrong*).	Salvin-Godman Coll.
u, v. ♂ ad. sk.	Monte Morelas, N. Leon, May (*Armstrong*).	Salvin-Godman Coll.
w, x. ♂ ♀ ad. sk.	Aldama, Tamaulipas, March (*W. B. Richardson*).	Salvin-Godman Coll.
y. Ad. sk.	Tamaulipas, Mexico (*W. B. Richardson*).	Salvin-Godman Coll.
z–e'. ♂ ♀ ad. et juv. sk.	Tampico, Mexico, Feb., March, June (*W. B. Richardson*).	Salvin-Godman Coll.
f'. ♂ ad. sk.	Northern Vera Cruz, June (*W. B. Richardson*).	Salvin-Godman Coll.
g', h'. ♂ ad. et ad. sk.	Misantla, Mexico, March (*F. D. Godman*).	Salvin-Godman Coll.
i'–m'. ♂ ♀ ad. sk.	Vega del Casadero, Vera Cruz, Dec. (*M. Trujillo*).	Salvin-Godman Coll.
n'. ♂ ad. sk.	Atoyac, Mexico, May (*D. W. Smith*).	Salvin-Godman Coll.
o', p'. ♂ ♀ ad. sk.	S. Lorenzo, Canton de Cordova, June (*Ferrari-Perez*).	Salvin-Godman Coll.

g'. ♂ ad. sk.	Sierra de Alamos, Sonora, May (*W. Lloyd*).	Salvin-Godman Coll.
r'. ♀ ad. sk.	El Toro, Sinaloa, May (*W. Lloyd*).	Salvin-Godman Coll.
s', *t'*. ♂ ♀ ad. sk.	Tres Marias Is., W. Mexico, April, May (*A. Forrer*).	Salvin-Godman Coll.
u'. Ad. sk.	Mazatlan, W. Mexico (*J. Xantus*).	Salvin-Godman Coll.
v'. ♀ ad. sk.	Mazatlan, W. Mexico, Nov. (*A. Forrer*).	Salvin-Godman Coll.
w'. ♂ juv. sk.	Presidio, W. Mexico, June (*A. Forrer*).	Salvin-Godman Coll.
x'. ♀ ad. sk.	Santiago, Ter. of Tepic, May (*W. B. Richardson*).	Salvin-Godman Coll.
y'. ♂ ad. sk.	San Blas, Ter. of Tepic, April (*W. B. Richardson*).	Salvin-Godman Coll.
z'. Ad. sk.	Acapulco, Mexico, March (*A. H. Markham*).	Salvin-Godman Coll.
a''. ♂ ad. sk.	SalinaCruz,Tehuantepec,Feb. (*W. B. Richardson*).	Salvin-Godman Coll.
b'', *c''*. Ad. sk. et st.	Mexico.	Purchased.
d'', *e''*. Ad. sk.	Northern Yucatan (*G. F. Gaumer*).	Salvin-Godman Coll.
f''. Ad. sk.	Buctzotz, Yucatan, April (*G. F. Gaumer*).	Salvin-Godman Coll.
g''. ♀ ad. sk.	Retalhuleu, Guatemala, Jan. (*W. B. Richardson*).	Salvin-Godman Coll.
h''. Ad. sk.	Escuintla, Guatemala.	Salvin-Godman Coll.
i''. Ad. sk.	Costa Grande, Zapote, Guatemala (*O. S.*).	Salvin-Godman Coll.
k'', *l''*. ♂ ad. sk.	V. de San Miguel, Salvador, March (*W. B. Richardson*).	Salvin-Godman Coll.
m''. ♂ ad. sk.	La Libertad, Chontales, Nicaragua, August (*W. B. Richardson*).	Salvin-Godman Coll.
n''. Juv. sk.	Costa Rica (*J. Carmiol*).	Salvin-Godman Coll.
o''. ♀ ad. sk.	Dota, Costa Rica, August (*Zeledon*).	Salvin-Godman Coll.

24. Columba rufina.

Columba rufina, *Temm. & Knip, Pig.* i. fam. seconde, p. 59, pl. 24 (1808–11); *Temm. Pig. et Gallin.* i. pp. 245, 467 (1813); *Vieill. N. D.* xxvi. p. 365 (1818); *Steph. Gen. Zool.* xi. p. 54 (1819); *Wied, Reise nach Bras.* i. p. 301, ii. p. 341 (1820–21); *Desm. Dict. Sc. Nat.* xl. p. 331 (1826); *Wagl. Syst. Av.* Columba, sp. 64 (1827); *Cuv. Règn. An.* 2nd ed. i. p. 491 (1829); *Less. Tr. d'Orn.* p. 470 (1831); *Wied, Beitr.* iv. p. 453 (1832); *Less. Compl. de Buff., Ois.* viii. p. 59 (1837); *Gullix. P. Z. S.* 1840, p. 43; *G. R. Gr. Gen. B.* ii. p. 470, n. 16 (1844); *Schomb. Reise*, iii. p. 743 (1848); *Rchnb. Syn. Av. Novit.* Columbariæ, ff. 2583–84 (1851); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 34 (1856); *Sclat. & Salv. Ibis*, 1859, p. 222 (Rio Dulce); ? *Sclat. P. Z. S.* 1860, p. 289 (Ecuador); *Gulliv. P. Z. S.* 1862, p. 102; *Sclat. & Salv. P. Z. S.* 1864, p. 370 (Panama), 1866,

p. 198 (Ucayali); *Salv. P. Z. S.* 1867, p. 159 (Veragua); *Sclat. & Salv. P. Z. S.* 1867, p. 591 (Mexiana); *Salv. Ibis*, 1870, p. 115; *id. P. Z. S.* 1870, pp. 217 (Veragua), 838 (Honduras); *Gieb. Thes. Orn.* i. p. 750 (1872); *Sclat. & Salv. Nomencl. Av. Neotr.* p. 132 (1873); *iid. P. Z. S.* 1873, p. 306 (East Peru); *Gulliv. P. Z. S.* 1875, p. 489; *Sclat. & Salv. P. Z. S.* 1876, p. 17, 1879, p. 543 (Medellin); *Forbes, Ibis*, 1881, pp. 318, 356 (N.E. Brazil); *Salv. Cat. B. Strickl. Coll.* p. 543 (1882); *Tacz. P. Z. S.* 1882, p. 48 (N.E. Peru); *Salv. & Godm. Ibis*, 1883, p. 212; *Sclat. List Vert. An.* 8th ed. p. 449 (1883); *Tacz. & Berl. P. Z. S.* 1885, pp. 110, 114 (Ecuador); *Berl. & Jher. Zeitschr. d. ges. Orn.* 1885, p. 176 (Taquara); *Tacz. Orn. Per.* iii. p. 236, Tables, p. 102 (1886); *Salv. Ibis*, 1886, p. 173 (British Guiana); *Zeledon, Ann. Mus. Nac. Costa Rica*, 1887, p. 127, n. 583 (Costa Rica); *Berl. J. f. O.* 1889, p. 319 (Ucayali); *Tristr. Cat. Coll. B.* p. 38 (1889); *Hartert, Kat. Vogelsamml.* p. 186 (1891); *Riker & Chapm. Auk*, viii. p. 162 (Santarem) (1891).

Janthœnas rufina, *Rchnb. Av. Syst. Nat.* p. xxv (1852).

Chlorœnas rufina, *Bp. Consp. Av.* ii. p. 52 (1854); *id. Compt. Rend.* xxxix. p. 1108 (1854), xl. p. 218, n. 146 (1855); *id. Coup d'œil Ordre Pig.* pp. 25, 56, n. 146 (1855); *Burm. Syst. Uebers. Th. Bras.* iii. p. 291 (1856); *Sclat. P. Z. S.* 1856, p. 143, 1857, p. 19 (Bogota), 1859, p. 147 (Ecuador), 1860, p. 97 (Nanegal); *Cass. Pr. Ac. Nat. Sc. Philad.* 1860, p. 194, n. 123 (Turbo and R. Atrato, Isthmus of Darien); *Lawr. Ann. Lyc. N. Y.* vii. p. 333 (Panama) (1862); *Rchnb. Tauben*, i. p. 62, t. 222. ff. 2583–84 (1862), p. 171 (1862); *Pelz. Orn. Bras.* pp. 274, 450, liv (1868); *G. R. Gr. Hand-list*, ii. p. 235, n. 9273 (1870); *Schleg. Mus. P.-B.* Columbæ, p. 79 (1873); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 14 (1873); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 277 (1890).

Melopelia plumbescens, *Lawr. Ibis*, 1880, p. 238 (juv., type examined); *Edd. tom. cit.*; *Rchnw. & Schal. J. f. O.* 1881, p. 74; *Salv. & Godm. Ibis*, 1883, p. 212 (=rufina, juv.).

Adult male. Forehead, vertex, and breast purple vinous with an amethystine tinge, especially on the neck; occiput and upper nape metallic bronze-green, with golden and purple reflections; cheeks grey; chin and throat whitish grey; back, scapulars, and smaller and median upper wing-coverts chestnut-purple, more or less tinged with amethystine; lower back, rump, and upper tail-coverts lead-grey; the purple-vinous colour of the breast merges gradually into the grey of the sides, abdomen, and under tail-coverts; greater wing-coverts brown-grey; quills brown, with narrow light edges; under wing-coverts grey; tail brown-grey, with a dirty-grey band at the tip, underneath paler: "iris red; bill blackish; feet dark red" (*Wied*). Length about 12 inches, wing 7·1, tail 4·6, bill 0·62, tarsus 1.

Female. Somewhat duller, and with the chestnut colour of the upper parts less extended on the back and upper wing-coverts.

Young. Brown-grey; occiput dark grey; no purple-vinous colour whatever; chin and throat whitish; rump plumbeous; sides, abdomen, under tail-coverts, and under wing-coverts grey; tail brown-grey, with apical dirty-grey band; upper wing-coverts and upper tail-coverts greyish brown, with narrow rufous edges.

Hab. Guatemala, down to Colombia, Guiana, Brazil, Ecuador, and Peru.

According to Taczanowski, the Peruvian birds differ slightly from the Cayenne ones.

Specimens from Brazil generally have the tail darker at the base, with a fairly well-defined lighter terminal band; and it is very probable that the description of *Columba sylvestris*, Vieill.*, from Paraguay, applies to such specimens. Wagler has already alluded to the great similarity of *C. sylvestris* to *C. rufina*, with which Graf von Berlepsch thinks it may be identical.

The type of *Melopelia plumbescens*, Lawr., kindly sent for inspection by Mr. Allen, is no doubt a young bird of the present species, as already surmised by Mr. Salvin. Two specimens in the British-Museum collection, both from British Guiana, agree closely with it. It has the tail uniform; so that if the characteristic features of *C. sylvestris* are found to hold, *M. plumbescens* would go with true *C. rufina*.

a. ♀ ad. sk.	Rio Dulce, Guatemala, Dec. (*O. S.*).	Salvin-Godman Coll.
b. ♀ ad. sk.	Cubilguitz, Guatemala (*O.S.*).	Salvin-Godman Coll.
c. Ad. sk.	Guatemala.	Tweeddale Coll.
d. Ad. sk.	British Honduras (*Blancaneaux*).	Salvin-Godman Coll.
e. Ad. sk.	San Pedro, Honduras (*G. M. Whitely*).	Salvin-Godman Coll.
f. ♂ ad. sk.	Costa Rica (*J. Carmiol*).	Salvin-Godman Coll.
g. ♂ ad. sk.	Bugaba, Chiriqui (*Arcé*).	Salvin-Godman Coll.
h. Ad. sk.	Chiriqui.	Capt. Kellet & Lieut. Wood [P.].
i. ♀ ad. sk.	Cordillera de Tolé, Veragua (*Arcé*).	Salvin-Godman Coll.
k. ♀ ad. sk.	Calovevora, Veragua (*Arcé*).	Salvin-Godman Coll.
l. ♂ ad. sk.	Lion Hill, Isthmus of Panama (*McLeannan*).	Salvin-Godman Coll.

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* COLUMBA SYLVESTRIS.

Paloma montés, *Azara, Apunt.* iii. p. 11, n. 319 (1802) (Paraguay); *id. ed. Sonn. Voy.* iii. p. 129 (1809).

Columba sylvestris, *Vieill. N. D.* xxvi. p. 366 (1818) (*ex Azara*); *id. Enc. Méth.* i. p. 375 (1823); *Wagl. Syst. Nat.* Columba, sp. 54 (1827); *Less. Compl. de Buff., Ois.* viii. p. 58 (1837); *G. R. Gr. Gen. B.* ii. p. 470, n. 17 (1844); *Hartl. Ind. Azar. Apunt.* p. 20, n. 319 (1847); *Gieb. Thes. Orn.* i. p. 751 (1872).

Columba melanoptera, *Temm.* (*nec Mol.*) *Pig. et Gall.* i. pp. 359, 488 (1813); *Steph. Gen. Zool.* xi. p. 101 (1819); *Desm. Dict. Sc. Nat.* xl. p. 375 (1826).

Chlorœnas sylvestris, *Bp. Consp. Av.* ii. p. 52 (1854); *id. Compt. Rend.* xxxix. p. 1108 (1854), xl. p. 218, n. 147 (1855); *id. Coup d'œil Ordre Pig.* pp. 25, 56, n. 147 (1855); *G. R. Gr. Hand-l. B.* ii. p. 235, n. 928 (1870); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 277 (Rio Grande and S.E. Brazil) (1890).

Columba rufina, *Berl. J. f. O.* 1887, p. 124, n. 292 (*Azara*, n. 319).

m. ♂ ad. sk.	Medellin, U.S. of Columbia (*T. K. Salmon*).	Salvin-Godman Coll.
n. Ad. sk.	Vicinity of Bogota (*G. Crowther*).	Salvin-Godman Coll.
o. Ad. sk.	Balzar Mts. (*Illingworth*).	Salvin-Godman Coll.
p, *q*. Ad. sk.	Trinidad.	Zool. Soc. Coll.
r, *s*, *t*. ♂ ♀ ad. et juv. sk.	Bartica Grove, Brit. Guiana, Dec. (*H. Whitely*).	Salvin-Godman Coll.
u, *v*. ♂ ad. sk.	Roraima, Brit. Guiana, Jan. (*H. Whitely*).	Salvin-Godman Coll.
w, *x*. Ad. et juv. sk.	British Guiana.	R. Schomburgk, Esq. [P.].
y. Ad. sk.	Cayenne.	H. C. Rothery, Esq. [P.].
z. Ad. st.	Para.	R. Graham, Esq. [P.].
a'. Ad. sk.	Island of Mexiana, Lower Amazons (*Wallace*).	Salvin-Godman Coll.
b'. ♂ ad. sk.	Ytararé, Brazil, Jan. (*Natterer*).	Salvin-Godman Coll.
c'. ♂ ad. sk.	Pelotas, Rio Grande do Sul, Brazil (*Joyner*).	Salvin-Godman Coll.
d', *e'*. ♂ ♀ ad. sk.	Chapada, Matto Grosso, Brazil, Aug., Sept. (*H. H. Smith*).	Salvin-Godman Coll.
f'. Ad. sk.	Brazil.	Purchased.
g', *h'*. Skeletons.		Purchased.

25. Columba caribæa.

Columba cauda annulo cincta jamaicensis, *Briss. Orn.* i. p. 138 (1760).

Pigeon à queue annelée de la Jamaique, *Buff. Hist. Nat. Ois.* ii. p. 539 (1771).

Ring-tailed Pigeon, *Lath. Syn.* ii. 2, p. 639 (1783); *id. Suppl.* i. p. 199, n. 33 (1787).

Columba caribæa, *Jacq. Beytr.* p. 30, n. 24 (1784)*; *Lath. Syn. Suppl.* i. p. 199 (1787); *Gm. S. N.* i. 2, p. 773, n. 6 (1788); *Lath. Ind. Orn.* ii. p. 603, n. 36 (1790); *Bonn. Tabl. Enc. Méth.* p. 236 (1790); *Temm. & Knip, Pig.* i. fam. seconde, p. 22, pl. 10 (1808–11); *Temm. Pig. et Gallin.* i. pp. 114, 450 (1813); *Vieill. N. D.* xxvi. p. 359 (1818); *Steph. Gen. Zool.* xi. p. 36 (1819); *Desm. Dict. Sc. Nat.* xl. p. 323 (1826); *Wagl. Syst. Av.* Columba, sp. 46, nota (1827), & sp. dub. 15 (1827); *Less. Tr. d'Orn.* p. 469 (1831); *id. Compl. de Buff., Ois.* viii. p. 100 (1837); *id. op. cit.* 2nd ed. p. 296 (1838); *G. R. Gr. Gen. B.* ii. p. 470, n. 25 (1844); *Hartl. Isis*, 1847, p. 611; *Rchnb. Syn. Av. Novit.* Columbariæ, f. 3362 (1851); *Sundev. Œfv. K. Vet.-Akad. För.* 1869, p. 601; *Gieb. Thes. Orn.* i. p. 741 (1872); *Sclat. & Salv. Nomencl. Av. Neotrop.* p. 132 (1873); *Baird, Brew., & Ridgw. Hist. N. Am. Birds*, iii. p. 359 (1874); *A. & E. Newt. Handb. Jam.* p. 114 (1881); *Cory, List B. W. Ind.* p. 23 (1885); *id. Auk*, 1887, p. 110; *id. B. W. Ind.* p. 211 (1889); *Scott, Auk*, 1892, p. 122 (Jamaica).

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* Although Jacquin stated that his bird had no black band across the tail, he nevertheless identified it with Brisson's species.

Columba caribæa β, *Lath. Ind. Orn.* ii. p. 603 (1790); *Wagl. Syst. Av.* Columba, sp. 46, nota, & sp. dub. 15 (1827).
Columba lamprauchen, *Wagl. Syst. Av.* Columba, sp. 46 (1827).
Columba caribbæa, *Denny, P. Z. S.* 1847, pp. 39, 40; *Gosse, Nat. Soj. in Jam.* p. 173 (1851); *Sclat. List Vert. An.* 8th ed. p. 447 (1883).
Columba caribbea, *Gosse, B. of Jam.* p. 291 (1847).
Janthœnas caribæa, *Rchnb. fide Bp.* (errore?), *Consp. Av.* ii. p. 54 (1854).
Patagiœnas caribæa, *Bp. Consp. Av.* ii. p. 54 (1854); *id. Compt. Rend.* xxxix. p. 1110 (1854), xl. p. 218, n. 154 (1855); *id. Coup d'œil Ordre Pig.* pp. 26, 56, n. 154 (1855); *Sclat. P. Z. S.* 1861, p. 80; *Rchnb. Tauben*, i. p. 65, t. 2306. f. 3362 (1862), ii. p. 172 (1862); *Albrecht, J. f. O.* 1862, p. 204; *G. R. Gr. Hand-list*, ii. p. 234, n. 9259 (1870).
Columba caribea, *March, Pr. Ac. Nat. Sc. Philad.* 1863, p. 301.
Patagiœnas lamprauchen, *Burm. Syst. Uebers. Th. Bras.* iii. p. 294 (1856).
Columba caribœa, *Tristr. Cat. Coll. B.* p. 37 (1889).

Adult male. Head, neck, and underparts vinous; hind neck metallic golden green, with purple reflections; rest of the upper parts grey with a slight olive tinge; under tail-coverts dirty whitish grey; the primaries and their coverts black, some of the former more or less edged with whitish; under surface of the wing grey, the quills darker; tail above dull grey, with a black band about the middle; tail underneath dusky grey, with a broad apical paler band: bill (in dry skin) black; feet pale yellowish, probably red in the live bird: "iris varies from reddish orange to a deep intense vermilion" (*Scott*). Total length about 14 inches, wing 8·5, tail 6·2, bill 0·7, tarsus 1·15.

Female. Like the male (*Cory*), but a specimen of this sex mentioned in the following list has the grey of the upper parts duller and somewhat tinged with olive, and the underparts of a more reddish tinge.

Hab. Jamaica (and Porto Rico, *Cory*).

a. ♀ ad. sk.	Trelawney, Jamaica, Nov.	Smithsonian Institution [P.].
b. ♂ ad. sk.	Trelawney, Jamaica, May (*W. Osburn*).	Salvin-Godman Coll.
c. ♀ ad. sk.	Spanishtown, Jamaica (*W. T. March*).	Salvin-Godman Coll.

26. Columba fasciata.

Columba fasciata, *Say, Long's Exped. R. Mts.* ii. p. 10 (1823); *Isis*, 1824, p. 272; *Bp. Am. Orn.* i. p. 77, pl. 8 (1825); *Wagl. Syst. Av.* Columba, sp. 47 (1827); *Bp. Syn.* p. 119 (1828); *Nutt. Man.* i. p. 624 (1832); *Less. Compl. de Buff., Ois.* viii. p. 100 (1837); *id. op. cit.* 2nd ed. p. 297 (1838); *Bp. Comp. List*, p. 41 (1838); *Aud. Orn. Biogr.* iv. p. 479, pl. 367 (1838); *id. Syn.* p. 191 (1839); *id. B. Amer.* iv. p. 312, pl. 279 (1842); *G. R. Gr. Gen. B.* ii. p. 470, n. 13 (1844); *Rchnb. Syn. Av.* f. 1255 (1847); *Peale, U.S. Expl. Exped., Birds*, p. 108 (1848); *Rchnb. op. cit. Novit.* Columbariæ, ff. 2865–66 (1851); *Hartl. Wiegm. Archiv,*

1852, p. 114; *Woodh. Sitgr. Rep.* p. 92 (1853); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 34 (1856); *Newb. Zool. Cal. & Or. Route, Rep. P. R. R.* vi. p. 92 (1857); *Baird, B. N. Am.* p. 597 (1858); *Cass. U.S. Expl. Exp., Mamm. & Orn.* p. 254 (1858); *Sclat. P. Z. S.* 1859, p. 236 (Vancouver Isl.), p. 369; *Salv. & Sclat. Ibis*, 1860, p. 276 (Guatemala); *Coop. & Suck. N. H. Wash. Terr.* p. 217 (1860); *Coues, Ibis*, 1865, p. 165; *id. P. A. N. S.* 1866, p. 93 (Arizona); *Brown, Ibis*, 1868, p. 423 (Vancouver I.); *Cooper, Am. Nat.* iii. p. 80 (1869); *Cooper, Orn. Cal.* i. p. 506 (1870); *Gieb. Thes. Orn.* ii. p. 743 (1872); *Schleg. Mus. P.-B.* Columbæ, p. 67 (1873); *Sclat. & Salv. Nomencl. Av. Neotrop.* p. 132 (1873); *Baird, Brew., & Ridgw. Hist. N. Am. B.* iii. p. 360, pl. 57. f. 2 (1874); *Coues, B. of the Northwest*, p. 385 (1874); *Lawr. Mem. Bost. Soc. N. H.* ii. p. 304 (1874); *Sanchez, An. Mus. Nac. Mexico*, i. p. 104, p. 486 (1878); *Sumichrast, Naturaleza*, v. p. 231, n. 26 (1881); *Salv. Cat. B. Strickl. Coll.* p. 542 (1882); *Coues, Key N. Am. Birds*, p. 565 (1884); *A. O. U. Code and Check-list Am. B.* p. 178, n. 312 (1886); *F.-Perez, Pr. U.S. Nat. Mus.* ix. p. 174 (1886); *Tristr. Cat. Coll. B.* p. 37 (1889); *Lawr. Auk*, 1892, p. 43; *Salv. & Godm. Ibis*, 1892, p. 328 (Nicaragua); *Bendire, Life-Hist. N. Am. Birds*, p. 122 (1892).

Columba monilis, *Vig. Zool. Beechey's Voy.* p. 26, pl. 10 (1839); *G. R. Gr. Gen. B.* ii. p. 470, n. 14 (1844); *Rchnb. Syn. Av. Novit.* Columbariæ, f. 2481 (1851).

Peristera ? fasciata, *Hartl. Syst. Verz.* p. 99 (1844).

Tæniœnas fasciata, *Rchnb. Av. Syst. Nat.* p. xxv (1852).

Chloroenas monilis, *Rchnb. Av. Syst. Nat.* p. xxv (1852); *id. Tauben*, i. p. 61, t. 227. f. 2481 (1862).

Chloroenas fasciata, *Bp. Consp. Av.* ii. p. 51 (1854); *id. Compt. Rend.* xxxix. p. 1108 (1854), xl. p. 218, n. 141 (1855); *id. Coup d'œil Ordre Pig.* pp. 24, 56, n. 141 (1855); *Sclat. P. Z. S.* 1856, p. 309, 1858, p. 305; *Rchnb. Tauben*, i. p. 60, t. 223. f. 1255, t. 255. ff. 2865–66 (1862), ii. p. 171 (1862); *Sumichr. Mem. Bost. Soc. N. H.* i. p. 562 (1869); *Dugès, Naturaleza*, i. p. 141, n. 171 (1870) (Mexico); *G. R. Gr. Hand-list*, ii. p. 235, n. 1269 (1870); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 226 (1890).

Adult male. Head, sides of the neck, throat, and breast purplish violet; a conspicuous narrow white band or half-collar on the nape: feathers of the hind neck metallic golden green; upper back and smaller upper wing-coverts brownish grey; lower back, rump, and upper tail-coverts, and also the median and greater wing-coverts, bluish grey; sides pale grey, middle of the abdomen and under tail-coverts white; quills brown, narrowly margined with whitish, also the greater upper wing-coverts have whitish outer edges; tail above grey at the base, dusty whitish grey at the tip, where is a broad band, and with a narrow black band across the middle; tail below paler: bill yellow with black tip; feet yellow; iris carmine, edged with gold. Length about 15 inches, wing 8·5, tail 5·6, bill 0·6, tarsus 0·94.

Female. Similar to the male, but somewhat smaller and duller; the head and underparts are less vinous and more reddish; the nuchal white collar quite distinct as in the male.

Young. Greyish brown; no nuchal white collar, and with a slight indication of the metallic-green feathers on the nape; no vinous

colour on the underparts, which are dull greyish, somewhat darker on the crop-region.

Hab. Western United States, from Washington Territory and New Mexico south to Guatemala and Nicaragua.

a. Juv. sk.	Vancouver Is.	J. K. Lord, Esq. [P.].
b, c. ♂ ad. et ad. sk.	California, Aug.	Salvin-Godman Coll.
d, e. ♂ ♀ ad. sk.	Laguna Creek, Santa Cruz City, California, June (*A. Forrer*).	Salvin-Godman Coll.
f. ♀ ad. sk.	Nicasio, Marin Co., California, Sept. (*H. W. Henshaw*).	Salvin-Godman Coll.
g–p. ♂ ♀ ad. et juv. sk.	Santa Fé Mts., Aug., Sept. (*H. W. Henshaw*).	Salvin-Godman Coll.
q. Juv. sk.	Forks of Rio Grande, Sept. (*C. E. Aitken*).	Salvin-Godman Coll.
r, s. ♂ ad. et ♀ imm. sk.	Rio Grande River, Col., Sept. (*H. W. Henshaw*).	Salvin-Godman Coll.
t–w. Ad. sk. et st.	Mexico.	Purchased.
x. ♂ ad. sk.	Mexico.	Tweeddale Coll.
y, z. ♂ ♀ ad. sk.	Sierra de San Luis Potosi, Mexico, July (*W. B. Richardson*).	Salvin-Godman Coll.
a'. ♀ ad. sk.	Sierra de Jerez, Zacatecas, Mexico, Sept. (*W. B. Richardson*).	Salvin-Godman Coll.
b'. ♀ ad. sk.	Tepic, Mexico, May (*W. B. Richardson*).	Salvin-Godman Coll.
c', d', e'. ♂ ♀ ad. et juv. sk.	Sierra Bolanos, Mexico, Feb.–Mar. (*W. B. Richardson*).	Salvin-Godman Coll.
f', g'. ♂ ad. et ad. sk.	Sierra de Colima, Mexico, April (*W. Lloyd*).	Salvin-Godman Coll.
h', i', k'. ♂ ♀ ad. sk.	Sierra Nevada de Colima, Mexico, May–Dec. (*W. B. Richardson*).	Salvin-Godman Coll.
l'. ♂ ad. sk.	Las Vigas, Mexico, Aug. (*F. Ferrari-Perez*).	Salvin-Godman Coll.
m'. Ad. sk.	Jalapa, S. Mexico (*de Oca*).	Salvin-Godman Coll.
n'. ♀ ad. sk.	Toliman, Guatemala, Dec. (*W. B. Richardson*).	Salvin-Godman Coll.
o', p'. Ad. et juv. sk.	Volcan de Fuego, Guatemala (*O. S.*).	Salvin-Godman Coll.
q'. Ad. sk.	Coban, Vera Paz (*O. S.*)	Salvin-Godman Coll.
r', s'. ♂ ♀ ad. sk.	Matagalpa, Nicaragua, Aug., Sept. (*W. B. Richardson*).	Salvin-Godman Coll.
t'. ♂ imm. sk.	San Rafael de Norte, Nicaragua, March (*W. B. Richardson*).	Salvin-Godman Coll.

27. Columba vioscæ.

Columba fasciata vioscæ, *Brewst. Auk*, 1888, p. 86 (Lower California); *Bendire, Life-Hist. N. Am. Birds*, p. 127 (1892).

"Similar to *C. fasciata*, but with the black tail-band wanting, or

only faintly indicated, the general colouring lighter and more uniform, the vinaceous tints, especially on the head, neck, and breast, much fainter and more or less replaced by bluish ash.....Wing 8·69 inches, tail 5·36, tarsus 1·15, bill from feathers ·66." (*Brewster.*)

Hab. Lower California.

Two specimens, mentioned below, agree with Brewster's description, especially as regards the tail, which, seen from below, appears uniform whitish grey.

a, *b*. Ad. sk.	San José de Rancho, Lower California (*Abott Frazar*).	Salvin-Godman Coll.

28. Columba crissalis.

Chlorœnas albilinea, *Lawr.* (*nec Gray*) *Ann. Lyc. N. Y.* ix. p. 135 (Costa Rica) (1868); *Cab. J. f. O.* 1869, p. 211 (Costa Rica); *Frantz. J. f. O.* 1869, p. 370.

Columba albilinea, *Salv. P. Z. S.* 1870, p. 217 (Veragua); *Zeled. Ann. Mus. Nac. Costa Rica*, 1887, p. 127, n. 579; *Cherrie, Auk*, 1892, p. 328 (San José, Costa Rica).

Columba albilineata, *Sclat. & Salv. Nomencl. Av. Neotrop.* p. 132, n. 9 (part., Veragua, Costa Rica); *Boucard, P. Z. S.* 1878, p. 43 (Costa Rica).

Similar to *C. albilinea*, but the middle of the abdomen, the vent, and the under tail-coverts much paler and whitish.

Hab. Costa Rica and Veragua.

Dr. Cabanis has rightly pointed out the differences between this species and the more southern *C. albilinea*, which has the parts alluded to above dark grey. Most probably Mr. Ridgway, while describing his *C. guayaquilensis*, compared it with the Central-American bird.

a. ♂ ad. sk.	Rancho Redondo, Costa Rica, March (*J. Carmiol*).	Salvin-Godman Coll.
b, *c*. Ad. sk.	Volcan de Cartago, Costa Rica (*Arcé*).	Salvin-Godman Coll.
d. ♂ ad. sk.	Boquete de Chitra, Veragua (*Arcé*).	Salvin-Godman Coll. (Type of species).
e. ♂ imm. sk.	Chitra, Veragua (*Arcé*).	Salvin-Godman Coll.
f. ♂ imm. sk.	Southern Slope of the Volcano of Chiriqui (*Arcé*).	Salvin-Godman Coll.

29. Columba albilinea.

Columba fasciata, *Tsch.* (*nec Say*) *Faun. Per.* pp. 44, 275 (1844–46).

Columba albilinea, *G. R. Gr. Mus. Brit. fide Bp. Consp. Av.* ii. p. 51 (1854); *Sclat. P. Z. S.* 1860, p. 72 (Pallatanga); *Gieb. Thes. Orn.* i. p. 740 (1872); *Schleg. Mus. P.-B.* Columbæ, p. 67 (1873) (Mexico!); *Sclat. & Salv. P. Z. S.* 1873, p. 186 (Peru); *Tacz. Orn. Per.*, Tables, p. 101 (1886); *Sclat. & Salv. P. Z. S.* 1879, p. 639 (Bolivia).

Columba albilineata, *G. R. Gr. MS. in Mus. Brit.* (New Granada); *id. List B. Brit. Mus.* Columbæ, p. 34 (1856); *Sclat. & Salv. Nomencl.*

Av. Neotrop. p. 132, n. 9 (part.) (1873); *iid. P. Z. S.* 1875, p. 235 (Merida), 1879, p. 543 (Antioquia); *Sclat. List Vert. An.* 8th ed. p. 448 (1883); *Berl. & Tacz. P. Z. S.* 1884, p. 311 (W. Ecuador); *Tacz. Orn. Per.* iii. p. 232 (1886); *Salv. Ibis*, 1886, p. 173 (British Guiana); ? *Tristr. Cat. Coll. B.* p. 37 (1889).

Chlorœnas albilinea, *Bp. Consp. Av.* ii. p. 51 (1854); *id. Compt. Rend.* xxxix. p. 1108 (1854), xl. p. 218, n. 142 (1855); *id. Coup d'œil Ordre Pig.* pp. 24, 56, n. 142 (1855); *id. Compt. Rend.* xliii. p. 838 (1856); *Sclat. P. Z. S.* 1855, p. 163; *Rchnb. Tauben*, i. p. 61 (1862), ii. p. 171; *Novit. Suppl.* t. ii. ff. 17, 18 (1862); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 14 (Rio Napo) (1873).

Chlorœnas albilineata, *G. R. Gr. Hand-list*, ii. p. 235, n. 9270 (1870); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 276 (part.?) (1890) (Ecuador, New Granada).

Columba denisea, *Tacz.* (*nec Temm.*) *P. Z. S.* 1874, p. 555 (Central Peru), 1882, p. 48 (N.E. Peru).

Columba guayaquilensis, *Ridgw. Pr. U.S. Nat. Mus.* 1888, p. 112 (Guayaquil!).

Adult male. Pileum dark vinous purple; a whitish band on the nape; scaly feathers of the hind neck dark metallic green with golden gloss; back and wings of a slate-colour, with a slight olive-greenish gloss; rump and upper tail-coverts lighter, bluish slate; throat slate-grey, rest of the underparts dark purple-vinous; sides and under wing-coverts lead-colour; under tail-coverts lead-grey, with a slight vinous tinge; quills brown-black, the outer primaries with narrow whitish edges; tail above slate-grey at the base, and dull grey on the apical broad band; about the middle an obsolete blackish band; tail paler below than above: "bill and feet yellow; iris red with an inner whitish ring; naked skin round the eyes red" (*Taczanowski*). Length about 15 inches, wing 8·25, tail 5·5, bill 0·75, tarsus 1.

Female. Most likely similar to the male, only duller, but not without the white nuchal band, as stated by Taczanowski.

Young. Greyish brown, with a greenish cast on the upper parts; greyish colour of the underparts with a slight purple tinge; no white band on the nape below the occiput; a few metallic-green feathers on the hind neck.

Hab. Columbia, British Guiana, Ecuador, Peru, and Bolivia.

a, b. ♂ ad. sk.	Roraima, Brit. Guiana, Aug., Dec. (*H. Whitely*).	Salvin-Godman Coll.
c, d. Ad. sk.	New Granada.	Purchased. (Types of species.)
e. ♂ ad. sk.	Santa Marta, New Granada.	Salvin-Godman Coll.
f. ♂ ad. sk.	Retiro, Antioquia (*Salmon*).	Salvin-Godman Coll.
g, h. Ad. sk.	Sical, Ecuador (*C. Buckley*).	Salvin-Godman Coll.
i. Ad. sk.	Ecuador (*Higgins*).	Salvin-Godman Coll.
k, l. Ad. sk.	Ramosani, Bolivia (*C. Buckley*).	Salvin-Godman Coll.
m. Juv. sk.	Tilotilo, Prov. Yunga, Bolivia (*C. Buckley*).	Salvin-Godman Coll.
n. Skeleton.	S. America.	Zoological Society's Coll.

30. Columba araucana.

Columba araucana, *Less. Voy. Coq.* i. 2, p. 706, pl. 40 (1828); *id. Man. d'Orn.* ii. p. 170 (1828); *Wagl. Isis*, 1829, p. 743; *Less. Compl. de Buff., Ois.* viii. p. 97 (1837); *id. op. cit.* 2nd ed. p. 296 (1838); *G. R. Gr. Gen. B.* ii. p. 470, n. 12 (syn. emend.) (1844); *Des Murs, in Gay's Hist. de Chile*, i. p. 376 (1847); *Rchnb. Syn. Av.* f. 1256 (1847); *Hartl. Naumannia*, 1853, pp. 215, 221; *Bibra, Denkschr. k. Ak. Wissensch.* v. 2, p. 130 (1853); *id. J. f. O.* 1855, p. 56; *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 33 (1856); *Cass. U.S. Expl. Exp., Mamm. & Orn.* p. 254 (1858); *Pelz. Novara Reis., Vög.* p. 108 (1865); *Sclat. P. Z. S.* 1867, pp. 330, 339; *Sclat. & Salv. Nomencl. Av. Neotr.* p. 132 (1873); *Sclat. List Vert. An.* 8th ed. p. 449 (1883); *Tristr. Cat. Coll. B.* p. 37 (1889); *Hartert, Kat. Vogels.* p. 186 (1891); *James, New List Chil. B.* p. 10, n. 165 (1892).

Columba denisea, *Temm. Pl. Col.* 502 (1830) (Chili); *Less. Compl. de Buff., Ois.* viii. p. 99 (1837); *id. op. cit.* 2nd ed. p. 296 (1838); *Knip & Prév. Pig.* ii. pl. 18 (1838–43); *Less. Rev. Zool.* 1842, p. 209 (Valdivia); *Gieb. Thes. Orn.* i. p. 742 (1872); *Schleg. Mus. P.-B.* Columbæ, p. 67 (1873); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 14 (1873); *Tacz. P. Z. S.* 1882, p. 48.

Columba fitzroyii, *King, P. Z. S.* 1830, p. 15 (Chiloe Isl.); *Less. Compl. de Buff., Ois.* viii. p. 101 (1832); *id. op. cit.* p. 297 (1838); *Darwin, Zool. Beagl.* p. 114 (1841); *Fraser, P. Z. S.* 1843, p. 115; *G. R. Gr. Gen. B.* ii. p. 270, n. 34 (1844).

? Columba meridionalis, *Peale* (*nec King*), *U.S. Expl. Exped., Birds*, p. 111 (1848) (Rio Negro in Patagonia); *Hartl. Wiegm. Arch.* 1852, p. 114.

Chlorœnas denisea, *Bp. Consp. Av.* ii. p. 51 (1854); *id. Compt. Rend.* xxxix. p. 1108 (1854), xl. p. 216, n. 143 (1855); *id. Coup d'œil Ordr. Pig.* pp. 24, 56, n. 143 (1855); *Rchnb. Taub.* i. p. 61, t. 223. f. 1256 (1862), ii. p. 171 (1862); *G. R. Gr. Hand-list*, ii. p. 235, n. 9271 (1870); *Tacz. P. Z. S.* 1874, p. 555 (C. Peru).

Chlorœnas araucana, *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 277 (1890).

Adult male. Head, throat, back, scapulars, breast, and abdomen chestnut-vinous, with an amethystine tinge on the breast; a whitish band on the nape; scaly-like feathers of the hind neck metallic bronze-green; lower back, rump, and basal upper tail-coverts lead-grey; longer upper tail-coverts brown-grey; under tail-coverts lead-grey, tinged with purple or rufous; wing-coverts greyish brown, changing into lighter grey on the outer and greater ones; quills brown-black, with narrow whitish edges; under wing-coverts and sides lead-grey; tail above dull grey, with a subterminal black band, and with the apical band dull grey, less than an inch broad: "iris red-yellow; bill black; feet dark rose-red" (*Philippi*, fide *Hartlaub*); bill black; feet apparently purple. Length about 16 inches, wing 8·5, tail 5·5, bill 0·65, tarsus 1·25.

Female. Similar to the male.

Young. Without the white band on the nape.

Hab. Chili and Magellan Straits.

The figure in the 'Voyage de la Coquille' does not show the white band on the nape, so that most probably it represents a young bird.

a–f. Ad. et juv. sk.	Central Chili.	H. Berkeley James, Esq. [P.].
g. ♀ ad. sk.	Prov. Santiago, Chili (*Leybold*).	Salvin-Godman Coll.
h. Ad. sk.	Valdivia, Chili.	Salvin-Godman Coll.
i. Ad. sk.	Chili.	C. Crawley, Esq. [P.].
k, l. Ad. sk.	Chili.	Purchased.
m–p. ♀ ad.	Tarapacá, Chili, Sept., Oct.	H. Berkeley James, Esq. [P.].

31. Columba laurivora.

Columba laurivora, part., *Webb & Berth. Orn. Can.* p. 26, pl. 3 (lower fig.) (1841); *Knip & Prév. Pig.* ii. pl. 43 (1838–43); *Bolle, J. f. O.* 1855, p. 171, 1857, pp. 324, 329; *Gieb. Thes. Orn.* i. p. 745 (part.) (1872); *Godm. Ibis*, 1872, p. 216; *Dress. B. of Eur.* vii. p. 31, pl. 460 (1875); *Reid, Ibis*, 1887, pp. 425, 426, 427, 428; *M.-Waldo, Ibis*, 1889, pp. 5, 6, 7, 8 (Gomera); *Tristr. Ibis*, 1889, p. 18; *M.-Waldo, Ibis*, 1889, p. 510 (Palma); *Tristr. Ibis*, 1890, p. 72; *M.-Waldo, ibid.* p. 435; *Koenig, J. f. O.* 1890, pp. 442, 483 (Palma); *Tristr. Ibis*, 1892, p. 182.

Columba trocaz, part., *G. R. Gr. Gen. B.* ii. p. 470, n. 27 (1844); *id. List B. Brit. Mus.* Columbæ, p. 27 (part.) (1856).

Trocaza laurivora, part., *Bp. Consp. Av.* ii. p. 45 (1854); *ib. Compt. Rend.* xxxix. p. 1104 (1854), xl. p. 218, n. 127 (1855); *id. Coup d'œil Ordre Pig.* pp. 20, 58, n. 127 (1855); *id. Compt. Rend.* xliii. p. 837 (Mus. Brit.) (1856); *id. Icon. Pig.* pl. 69 (1857).

Trocaza trocaz, part., *G. R. Gr. Hand-list*, ii. p. 233, n. 9249 (1870).

Palumbus laurivorus, *Shell. Ibis*, 1883, p. 287.

Adult male. Head and upper part of the neck slate-grey glossed with green, feathers of the upper mantle and underparts with vinous-purple metallic edges; lower back, rump, and upper tail-coverts plumbeous grey; under tail-coverts dark dull grey, the basal ones tinged with vinous; wings brown, the outer webs of the primaries with narrow pale or greyish edges; tail above dull grey, the outer feathers with a broad paler band; tail underneath changing gradually from the grey base to the light grey terminal portion: "bill vinous red at the base, pale rose at the tip; iris orange, with an outer ring red; feet lake-red" (*fide Shelley*). Total length about 15·5 inches, wing 8·6, tail 6·2, bill 0·8, tarsus 1·4.

Hab. Canary Islands—Gomera and Palma.

a. Ad. sk.	Canary Islands.	Wilson Coll.
b. ♂ ad. sk.	Gomera (*H. B. Tristram*).	Salvin-Godman Coll.

32. Columba bollei.

? Columba (Torcaza) buvryi ?, *Bolle, J. f. O.* 1857, p. 329.

Columba bollii, *Godm. Ibis*, 1872, p. 217 (Teneriffe); *Dress. B. of Eur.* vii. p. 29, pl. 459 (1875); *Reid, Ibis*, 1887, pp. 425, 426, 427; *Pelz. & Lor. Ann. Naturh. Hofmus.* iii. p. 48 (1888); *M.-Waldo, Ibis*, 1889, pp. 6, 7, 8 (Gomera); *Tristr. Ibis*, 1889, p. 18 (Gran Canaria); *M.-Waldo, Ibis*, 1889, p. 510 (Palma), 1890, p. 435.

Palumbus bollii, *Shell. Ibis*, 1883, p. 287.
Columba bollei, *Koenig. J. f. O.* 1890, pp. 441, 442, 486 (Teneriffe, Gomera, Palma), t. viii. f. 12 (egg).

Adult male. Slate-blue; feathers of the hind neck and sides of the neck scale-like, glossed with green and purple; also on the upper mantle glossed with purple, and with dull green lower down; on the sides of the neck a patch of feathers with coppery or chestnut-reddish gloss; breast and abdomen rich vinous; vent, flanks, and under tail-coverts slate-blue; quills and primary-coverts dull black; tail slate-black, with a broad subterminal dark grey band: "bill red, darker at the tip; legs coral-red; iris straw-yellow; edge round the eye coral-red" (*Dresser*). Total length 14·5 inches, wing 8·2, tail 6·4, bill 0·8, tarsus 1·1.

Female. Similar to the male, but perhaps a little duller.

Young. Much duller; general plumage dull slate-grey; no metallic gloss on the neck; vinous colour of the underparts paler.

Hab. Canary Islands—Teneriffe, Gomera, Palma.

a. ♂ ad. sk.	Taganana, Teneriffe, March (*F. D. Godman*).	Salvin-Godman Coll. (Type of species.)
b, *c*, *d*. ♂ ♀ ad. sk.	Taganana, Teneriffe, March (*F. D. Godman*).	Salvin-Godman Coll.
e. ♀ ad. sk.	Orotava, Teneriffe, April (*F. D. Godman*).	Salvin-Godman Coll.

33. Columba trocaz.

Columba trocaz, *Heineken, Brewster's Journ. of Science*, 1829, p. 228 (Madeira); *Jard. & Selb. Ill. Orn.* ii. pl. 98 (1839); *G. R. Gr. Gen. B.* ii. p. 470, n. 27 (part.) (1844); *Vern. Harc. P. Z. S.* 1851, p. 142; *id. Ann. & Mag. N. H.* xii. p. 58 (1853); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 27 (part.) (1856); *A. Newt. Ibis*, 1863, p. 186; *Vern. Harc. Ibis*, 1863, p. 231; *Godm. Ibis*, 1872, p. 214; *Dress. B. of Eur.* vii. p. 33, pl. 461 (1875); *Reid, Ibis*, 1887, pp. 425, 428 (Madeira and Azores!); *Grant, Ibis*, 1890, p. 442; *Koenig, J. f. O.* 1890, p. 442; *Hartw. Ornis*, 1891, p. 167.
Columba laurivora, part., *Webb & Berth. Orn. Can.* p. 26, pl. 3 (upper figure) (1841); *Gieb. Thes. Orn.* i. p. 745 (part.) (1872); *Hartw. J. f. O.* 1886, pp. 454, 455, 483.
Palumbus trocaza, *Bp. in litt.* (*Consp. Av.* ii. p. 45, 1854).
Trocaza laurivora, part., *Bp. Consp. Av.* ii. p. 45 (1854); *id. Compt. Rend.* xxxix. p. 1104 (1854), xl. p. 218, n. 127 (1855); *id. Coup d'œil Ordr. Pig.* pp. 20, 58, n. 127 (1855).
Trocaza bouvryi, *Bp. Compt. Rend.* xli. p. 659 (1855), xliii. pp. 837, 948 (Madeira and Morocco!) (1856); *id. Icon. Pig.* pl. 70 (1857).
Trocaza trocaz, part., *G. R. Gr. Hand-list*, ii. p. 233, n. 9249 (1870).
Trocaza bouvreyi (*sic*), *G. R. Gr. Hand-list*, ii. p. 233, n. 9250 (1870).
Trocaza heineken, *Bp.* (errore), *Gieb. Thes. Orn.* i. p. 745 (1872).
Palumbus trocaz, *Shell. Ibis*, 1883, p. 286.

Adult male. General plumage slate-blue, a little lighter on the head, fore neck, lower back, rump, and underparts; feathers of the hind neck and sides of the neck scale-like, tipped with silvery grey;

hind neck glossed with green, upper mantle with green and purple; breast vinous red; primary-coverts and quills slate-black, the primaries with narrow light grey edges; tail dark slate-plumbeous, crossed beyond the middle by a broad grey band: "iris straw-colour; legs coral-red; bill and naked space round the eye coral-red, the former tipped with blackish" (*fide Dresser*). Total length about 16 inches, wing 9·2, tail 6·8, bill 0·8, tarsus 1·38.

Female. Similar to the male.

Young. Much duller, with no silvery-grey tips to the feathers of the neck, and with a slight dull tinge of vinous on the breast.

Hab. Madeira.

a–g. ♂ ♀ ad. et imm. sk.	Madeira, June (*F. D. G.*).	Salvin-Godman Coll.
h–l. ♂ ♀ ad. et imm. sk.	Seisal, Madeira, April.	W. R. Ogilvie Grant, Esq. [C.].
m. ♂ ad. sk.	St. Anna, Madeira, April.	W. R. Ogilvie Grant, Esq. [C.].

34. Columba palumbus.

Palumbus torquatus, *Aldr. Orn.* ii. p. 484 (1599–1603).

Palumbus, *Briss. Orn.* i. p. 89 (1760).

Columba palumbus, *Linn. S. N.* i. p. 282, n. 19 (1766); *Gm. S. N.* i. 2, p. 776, n. 19 (1788); *Lath. Ind. Orn.* ii. p. 601, n. 32 (1790); *Bonn. Enc. Méth.* i. p. 232 (1790); *Knip & Temm. Pig.* i. fam. seconde, pl. 2 (1808–1813); *Temm. Hist. Nat. Pig. et Gallin.* i. pp. 79, 444 (1813); *id. Man. d'Orn.* p. 276 (1815); *Nills. Orn. Suec.* p. 291 (1817); *Vieill. N. D.* xxvi. p. 360 (1818); *Steph. Gen. Zool.* xi. p. 12 (1819); *Temm. Man. d'Orn.* ii. p. 444 (1820); *Steph. Gen. Zool.* xiv. p. 280 (1826); *Desm. N. D.* xl. p. 312 (1826); *Wagl. Syst. Av.* Columba, sp. 45 (1827); *Werner, Atlas, Pigeons*, pl. 1 (1827); *Kaup, Natürl. Syst.* p. 107 (1829); *Savi, Orn. Tosc.* ii. p. 154 (1829); *Less. Tr. d'Orn.* p. 468 (1831); *Naum. Vög. Deutschl.* vi. p. 168, t. 149 (1833); *Selby, Nat. Libr., Pigeons*, p. 13, vignette titlepage (1835); *Strickl. P. Z. S.* 1836, p. 100 (Smyrna); *Gould, B. of Eur.* pl. 243 (1837); *Keys. & Blas. Wirbelth. Eur.* pp. lxii, 195 (1840); *G. R. Gr. Gen. B.* ii. p. 470, n. 2 (1844); *Hartl. Syst. Verz.* p. 98 (1844); *Blyth, J. A. S. B.* xiv. p. 865 (part.) (1845); *id. Ann. & Mag. N. H.* xix. p. 106 (part.) (1847); *Rchnb. Syn. Av.* Columbariæ, ff. 1241-42 (1847); *Vern. Harc. P. Z. S.* 1851, p. 142 (Madeira); *Schleg. Vog. Nederl.* pl. 183 (1854); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 26 (1856); *Sundev. Svenska Foglarna*, p. 166, pl. 31. f. 2 (1856); *Salv. Ibis*, 1859, p. 318 (E. Atlas); *Tristr. Ibis*, 1860, p. 152 (Algeria); *Powys, Ibis*, 1860, p. 236; *Parker, P. Z. S.* 1863, p. 516; *Tristr. P. Z. S.* 1864, p. 448 (Palestine); *Wright, Ibis*, 1864, p. 137; *More, P. Z. S.* 1865, p. 140; ? *De Filippi, Viagg. in Pers.* p. 350 (Ghilan) (1865); *Godman, Ibis*, 1866, pp. 99, 102 (Azores); *Degl. & Gerbe, Orn. Europ.* ii. p. 6 (1867); *Huxley, P. Z. S.* 1867, p. 434, fig. of the skull; *Drake, Ibis*, 1867, p. 428 (Morocco); *Tristr. Ibis*, 1868, p. 209 (Palestine); *Smith, Ibis*, 1868, p. 449; *Elw. & Buckl. Ibis*, 1870, p. 200; *Tacz. J. f. O.* 1870, p. 51 (Constantine); *Saund. Ibis*, 1871, p. 222; *Gurney, Ibis*, 1871, p. 204 (Algeria); *Fritsch, Vög. Eur.* taf. 29. f. 3 (1871); *Godman, Ibis*, 1872, p. 216 (Madeira); *Salvad. Faun. d'Ital., Uccelli*, p. 177

(1872); *Gieb. Thes. Orn.* i. p. 748 (1872); *Alst. & H. Brown, Ibis*, 1873, p. 66; *Schleg. Mus. P.-B.*, Columbæ, p. 66 (1873); *Brooke, Ibis*, 1873, p. 335; *Cordeaux, Ibis*, 1875, p. 184 (Heligoland); *Danf. & H. Brown, Ibis*, 1875, p. 416; *Gulliv. P. Z. S.* 1875, p. 489; *Irby, Ornith. Str. of Gibralt.* p. 132 (Morocco) (1875); *B. Wharton, Ibis*, 1876, p. 26 (Corsica); *Schal. J. f. O.* 1876, p. 186; *Blanf. Zool. & Geol. of East. Pers.* p. 269 (1876); *Danford, Ibis*, 1878, p. 27 (Asia Minor); *Dress. B. of Eur.* vii. p. 3, pl. 456 (1878); *Seebh. Ibis*, 1880, p. 193 (Siberia); *Dixon, Ibis*, 1882, p. 577; *Salv. Cat. B. Strickl. Coll.* p. 542 (1882); *Saunders, Hist. of Brit. B.* iii. p. 1 (1882); *Seebh. Ibis*, 1883, p. 25; *Sclat. List Vert. An.* 8th ed. p. 446 (1883); *Tristr. Faun. & Flor. of Palest.* p. 119 (1884); *Radde, Ornis Cauc.* p. 328 (1884); *Whiteh. Ibis*, 1885, p. 41 (Corsica); *Dixon, ibid.* p. 84 (St. Kilda); *Reid, ibid.* p. 231; *Hartw. J. f. O.* 1886, p. 483 (Madeira); *Tait, Ibis*, 1887, p. 378; *Salvad. Elenco Ucc. Ital.* p. 191 (1887); *Lilf. Ibis*, 1889, p. 332 (Cyprus); *Clarke, ibid.* p. 550; *Tristr. Cat. Coll. B.* p. 38 (1889); *Evans, Ibis*, 1891, p. 73; *Saund. Ibis*, 1891, p. 185; *Hartert, Kat. Vogelsamml.* p. 185 (1891); *Hartw. Ornis*, 1891, p. 162 (Madeira).

Pigeon Ramier, *D'Aubent. Pl. Enl.* 316; *Buff. Hist. Nat. Ois.* ii. p. 531, t. 24 (1771).

Ring Pigeon, *Lath. Syn.* ii. 2, p. 635 (1783); *id. Suppl.* i. p. 198 (1787).

Columba palumbes, *Pall. Zoogr. Rosso-As.* i. p. 563 (1811).

Columba arborea, *Buff.* (?), *Pall. op. cit.*, in the syn. of C. palumbes.

Columba torquata, *Leach, Syst. Cat. M. & B. Brit. Mus.* p. 26 (1816); *Brehm, Vög. Deutschl.* p. 488 (1831).

Columba pinetorum, *Brehm, Vög. Deutschl.* p. 488 (1831).

Columba palumbaria, *Körner, Skandin. Foglar*, p. 13 (1839–46).

Palumbus torquatus, *Blyth, Cat. B. Mus. A. S. B.* p. 233, n. 1413 (part.) (1849); *Bp. Consp. Av.* ii. p. 41 (1854); *id. Compt. Rend.* xxxix. p. 1103 (1854), xl. p. 218, n. 113 (1855); *id. Coup d'œil Ordr. Pig.* pp. 19, 56, n. 113 (1855); *id. Compt. Rend.* xliii. p. 837 (Algeria) (1856); *id. Icon. Pig.* pl. 57 (var.) (1857); *Loche, Expl. Sc. Algér.* ii. p. 107 (1857); *Rchnb. Tauben*, i. p. 50, t. 220. ff. 1241–42 (1862), ii. p. 167 (part.) (1862); *Gould, B. of Great Brit.* iv. pl. 1 (pt. xiv.) (1868); *Bett. Ucc. Lombardia*, t. 18 (1871); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 12 (1873); *Bogd. Consp. Av. Imp. Ross.* fasc. i. p. 5 (1884); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 275 (1890).

Palumbus excelsus, *Bp. Compt. Rend.* xliii. pp. 836, 948 (N.W. Africa) (1856); *id. Cat. Parzud.* p. 16 (Algeria!) (1856); *Loche, Expl. Sc. Alg.* ii. p. 109 (1857); *Rchnb. Tauben*, i. p. 51 (1862); *G. R. Gr. Hand-list*, ii. p. 233, n. 9248 (N.E. Africa!, *errore*) (1870).

Palumbus torquatus, *α.* excelsus, *Bp. C. Rend.* xliii. p. 948 (1856).

Palumbus torquatus, var. *β.* algira, *Bp. Icon. Pig.* text of pl. 57 (Algeria) (1857).

Columba trocaz, *Morel.* (*nec Heinek.*) *Hist. Nat. Açor.* p. 84 (1860).

Columba excelsa, *Trist. Ibis*, 1860, p. 152.

Palumbus palumbus, *G. R. Gr. Hand-list*, ii. p. 233, n. 9243 (1870); *Shell. Ibis*, 1883, p. 285.

Adult male. Head and upper part of the neck bluish grey; sides and back of the neck glossed with green; on the lower part of the neck, on each side, a broad white patch; the base of the neck behind and on the sides glossed with purple; back, scapulars, and the

upper wing-coverts next to the back greyish brown; lower back, rump, and upper tail-coverts lead-grey; lower part of the fore neck and breast vinous purple, gradually fading into the pale grey of the sides, abdomen, and under tail-coverts; the anterior upper wing-coverts white, forming a white band along the edge of the wing; winglet and primary-coverts blackish; quills brown, the primaries edged with white on the outer web; under wing-coverts lead-grey; tail above grey at the base, blackish at the tip, below dark grey, paler at the base, and with a broad light grey band in the middle: bill orange-red at the base, yellow towards the tip; membrane covering the nostrils almost white; irides straw-yellow; tarsi and feet red. Length about 17 inches, wing 10, tail 5·75, bill 0·74, tarsus 1·1.

Female. A little smaller and somewhat duller in colouring than the male.

Young. Duller and paler in coloration than the male, and it lacks the white patches on the sides of the neck: bill dull red at the base, greyish towards the tip.

Hab. Western Palæarctic Region, as far east as Northern Persia. It lives also in the Azores and in Madeira.

a–d. ♂ ♀ ad. et pull. sk.	Great Britain.	Gould Coll.
e. Ad. st. [albino].	Great Britain.	Mr. Day [P.].
f, g. Ad. sk.	Scotland.	Tweeddale Coll.
h. Ad. sk.	Aboyne, Scotland.	Sharpe Coll.
i. Juv. sk.	Yester, Feb.	Tweeddale Coll.
k. Ad. st.	Leicestershire.	Theodore Walker, Esq. [P.].
l–o. ♂ ♀ ad. et pull. st.	Norfolk, June.	Lord Walsingham [P.].
p. Ad. sk.	Park Hatch, Surrey, Jan. (*F. D. Godman*).	Salvin-Godman Coll.
q, r, s. Ad. et pull. st.	Cambridgeshire.	J. Baker, Esq. [P.].
t. Ad. sk.	Maidenhead.	Sharpe Coll.
u, v. ♂ ad. sk.	Cookham (*W. Briggs*).	Tweeddale Coll.
w. ♂ ad. sk.	Cookham, March (*R. B. Sharpe*).	Salvin-Godman Coll.
x, y. ♂ ♀ ad. sk.	Avington, May, Aug. (*G. E. S.*).	Shelley Coll.
z. ♀ ad. sk.	Avington, May.	Sharpe Coll.
a'. Ad. sk.	Colgate, April (*R. Agate*).	Sharpe Coll.
b'. Ad. sk.	Wiltshire.	Col. Montagu Coll.
c'. Ad. sk.	St. Bride's, S. Wales, April.	Hon. W. Edwardes [P.].
d'. Ad. sk.	Sweden.	Gould Coll.
e'. ♂ imm. sk.	Holland, Oct. (*C. Dack*).	Seebohm Coll.
f', g'. ♂ ♀ ad. sk.	Mesopotamia (*Commander Jones*).	India Museum [P.].
h', i'. Ad. st.	Baghdad.	Kenneth Loftus, Esq. [P.].
k'. Skeleton.		Darwin Coll.
l'. Skull.	S. Germany.	Dr. Günther's Coll.

35. Columba casiotis.

Columba palumbus, part., *Blyth, J. A. S. B.* xiv. p. 866 (N.W. Himalaya, Simla, Alpine Punjab) (1844); *id. Ann. & Mag. N. H.* xix. p. 106 (1847); *Adams* (*nec Linn.*), *P. Z. S.* 1859, p. 187 (Cashmere and Ladakh).

Palumbus torquatus, var., *Blyth, Cat. B. Mus. A. S. B.* p. 233 (1849); *Adams* (*nec auct.*), *P. Z. S.* 1858, p. 497 (Himalaya and Punjab); *Rchnb. Tauben*, ii. p. 167 (part.) (1862).

Palumbus casiotis, *Bp. Consp.* ii. p. 42 (1849); *id. Compt. Rend.* xxxix. p. 1103 (1854), xl. p. 218, n. 114 (1855); *id. Coup d'œil Ordre Pig.* pp. 19, 56, n. 114 (1855); *id. Compt. Rend.* xliii. p. 837 (1856); *id. Icon. Pig.* pl. 58 (1857); *Rchnb. Tauben*, i. p. 51 (1862); *Blyth, Ibis*, 1867, p. 149; *Pelz. Ibis*, 1868, p. 320 (Koteghur); *G. R. Gr. Hand-list*, ii. p. 233, n. 9244 (1870); *Cock & Marsh. Str. Feath.* i. p. 358 (1873); *Hume, Nests & Eggs*, iii. p. 497 (1875); *Dresser, Ibis*, 1876, p. 320; *Hume, Str. Feath.* viii. p. 109 (1879); *Wardl. Rams. Ibis*, 1879, p. 448 (Afghanistan); *Marsh. Ibis*, 1884, p. 421 (Chamba); *Bogd. Consp. Av. Imp. Ross.* fasc. i. p. 6 (1884).

Columba casiotis, *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 26 (Nepal) (1856); *Tytler, Ibis*, 1868, p. 202; *Gieb. Thes. Orn.* i. p. 740 (1872); *Blanf. Zool. & Geol. East. Pers.* p. 269 (Shiraz) (1876); *Bidd. Ibis*, 1881, p. 91 (Gilgit); *Scully, ibid.* p. 583; *C. Swinh. Ibis*, 1882, p. 117; *Saunders, Hist. of Brit. Birds*, iii. p. 6 (1882); *Pleske, Mém. Ac. Pétersb.* (7) xxxvi. n. 3, p. 45 (1888); *St. John, Ibis*, 1889, p. 173; *Tristr. Cat. Coll. B.* p. 37 (1889).

Columba palumbus himalayana, *Schleg. Mus. P.-B.* Columbæ, p. 66 (1893).

Columba pulchricollis, *Severtz.* (*nec Gould*) *Turkest. Jevotn.* p. 68 (1873); *id. J. f. O.* 1873, pp. 346, 382 (Turkestan).

Palumbus pulchricollis, *Severtz.* (*nec Gould*) *J. f. O.* 1875, p. 180.

Similar to *C. palumbus*, from which it differs in having the light patches on the sides of the neck of a fulvous or clayey cream-colour.

Hab. From Thian-shan and Kouldja, through Turkestan, to N.W. Himalaya, Cashmere, Punjab, and S.E. Persia.

a. ♂ ad. sk.	Thian-shan, Aug. (*Severtzoff*).	Tweeddale Coll.
b. ♀ ad. sk.	Lepsa, Turkestan, May.	Dr. Otto Finsch [C.].
c, *d*. Ad. sk.	Bharowal (*Griffiths*).	India Museum [P.].
e. ♀ ad. sk.	Kojuk, Afghanistan, April.	Col. Swinhoe [P.].
f. ♂ ad. sk.	Kandahar, March (*Sir O. St. John*).	Hume Coll.
g. ♀ ad. sk.	Bian Kheyl, April (*R. G. W. R.*).	Tweeddale Coll.
h. ♂ ad. sk.	Quetta, May.	Col. Swinhoe [P.].
i. Ad. sk.	Scinde (*Lieut. Burgess*).	Gould Coll.
k. ♂ ad. sk.	Agrore, May.	Hume Coll.
l. ♂ juv. sk.	Gilgit, Oct.	J. Biddulph, Esq. [C.].
m. Ad. sk.	Cashmere, Aug.	Hume Coll.
n. Ad. sk.	N.W. Himalayas.	Capt. Stackhouse Pinwill [P.].

o–s. Ad. sk.	Koteghur, March, April.	Hume Coll.
t. ♂ ad. sk.	Simla, Dec. (*W. Davison*).	Hume Coll.
u. Ad. sk.	Bussahir, Feb.	Hume Coll.
v. Ad. sk.	Kumaon, July (*G. F. L. Marshall*).	Hume Coll.
w. Ad. sk.	Near Almorah, Nov.	Hume Coll.
x. Ad. sk.	Naini Tal, Nov.	Hume Coll.
y. Ad. sk.	Nepal.	B. H. Hodgson, Esq. [P.].

36. Columba torringtoniæ.

Palumbus elphinstonii, var., *Blyth, J. A. S. B.* xx. p. 178 (1851).

Palumbus torringtonii, *Kelaart, Pr. Faun. Zeyl.* p. 107 (1852); *Bp. Consp. Av.* ii. p. 42 (1854); *id. Compt. Rend.* xxxix. p. 1103 (1854), xl. p. 218, n. 117 (1855); *id. Coup d'œil Ordr. Pig.* pp. 20, 56, n. 117 (1855); *id. Compt. Rend.* xliii. p. 837 (1856); *Rchnb. Tauben*, i. p. 52 (1862); *Jerd. B. Ind.* iii. p. 466 (1864); *Blyth, Ibis*, 1867, p. 306; *G. R. Gr. Hand-list*, ii. p. 233, n. 9247 (1870); *Hume, Nests & Eggs*, iii. p. 499 (1875); *id. Str. F.* vii. p. 424 (1878), viii. p. 109 (1879).

Carpophaga (Palumbus) torringtonii, *Kelaart, Prodr. Cat.* p. 130 (1852).

Carpophaga torringtonii, *Layard, Ann. & Mag. N. H.* xiv. p. 59 (1854).

Columba torringtonii, *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 27 (1856); *Gieb. Thes. Orn.* i. p. 751 (1872); *Tristr. Cat. Coll. B.* p. 38 (1889).

Palumbus torringtoniæ, *Holdsw. P. Z. S.* 1872, p. 694; *Legge, Ibis*, 1874, p. 25; *id. Birds of Ceyl.* p. 693, pl. 30 (ad. and young) (1880).

Lepidœnas torringtoni, *Schleg. Mus. P.-B.* Columbæ, p. 71 (1873).

Adult male. Head, neck, and underparts ashy vinous, with metallic-purple reflections, brighter on the upper mantle and crop-region, and more or less green on the lower neck; the upper mantle shows a cupreous hue; nuchal patch black, with the tips of the feathers white; throat grey; back, rump, upper wing-coverts, and wings slate-grey, the feathers of the back, rump, and scapulars with slight green or purple reflections on the edges; primaries dull brown, with paler outer edges; under wing-coverts slate-grey; tail slate-black: "iris pale red; orbital skin pink; bill, basal half plumbeous, the apical or corneous portion bluish; tarsus in front and top of the toes red, posterior tarsus and sides of toes, with the soles, paler; claws fleshy white" (*Legge*). Total length 13·5 to 14·3 inches, wing 7·7 to 8, bill 0·75, tarsus 0·92.

Female. Similar to the male, but head, chest, and under surface more ruddy than in the male, and the cupreous hue of the lower hind neck deeper; under tail-coverts and flanks redder.

Young. "Upper surface ashy plumbeous; forehead and face slightly ruddy; neck-patch not developed, the feathers of the nuchal collar being blackish, with ashy-whitish tips, not pure white; the metallic hue of hind neck faintly developed; chest ruddy plumbeous; the under surface vinaceous slaty, washed with

fulvous-brown on the breast. Some examples have the wing-coverts edged with rusty, and the chin and gorge more albescent than in the adult." (*Legge.*)

Hab. Ceylon.

a. Ad. sk.	Ceylon.	Dr. Kelaart [P.]. (Type of species.)
b. Ad. sk.	Ceylon.	Cuming Coll.
c, d, e. ♂ ad. et juv. sk.	Ceylon (*H. Nevill*).	Tweeddale Coll.
f, g. ♂ ♀ ad. sk.	Ceylon, Dec. (*S. Chapman*).	Tweeddale Coll.
h. Ad. sk.	Ceylon (*A. Whyte*).	Tweeddale Coll.
i, k. ♂ ad. sk.	Ceylon (*A. Whyte*).	Hume Coll.
l. ♂ ad. sk.	Pallabadalla, Ceylon, Aug. (*W. V. Legge*).	Seebohm Coll.
m. ♂ ad. sk.	Pallabadalla, Ceylon, Aug.	W. V. Legge, Esq. [C.].
n. Ad. sk.	Kandy, Ceylon (*H. Whyte*).	Salvin-Godman Coll.

37. Columba elphinstonei.

Ptilinopus elphinstonii, *Sykes, P. Z. S.* 1832, p. 149 (Nilghiris); *Less. Compl. de Buff., Ois.* viii. p. 139 (1837); *id. op. cit.* 2nd ed. p. 279 (1838); *Jerd. Madr. Journ.* xii. p. 11, n. 283 (1840).

Columba elphinstonii, *Blyth, J. A. S. B.* xiv. p. 866 (1845); *id. Ann. & Mag. N. Hist.* xix. p. 106 (1847); *Strickl. ibid.* (nota); *Jerd. Illustr. Ind. Orn.* pl. 48 (1847); *Fraser, Zool. Typ.* pl. 59 (1849); *Rchnb. Syn. Av. Novit.* Columbariæ, f. 2580 (1851); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 26 (1856); *Gieb. Thes. Orn.* i. p. 742 (1872); *Salv. Cat. B. Strickl. Coll.* p. 543 (1882).

Carpophaga elphinstoni, *G. R. Gr. Gen. B.* ii. p. 469, n. 27 (1844).

Palumbus elphinstonei, *Blyth, Cat. B. Mus. A. S. B.* p. 233, n. 1415 (1849); *Gould, B. of As.* vi. pl. 57 (pt. vi. 1857); *Bp. Consp. Av.* ii. n. 42 (1854); *id. Compt. Rend.* xxxix. p. 1103 (1854), xl. p. 218, n. 116 (1855); *id. Coup d'œil Ordre Pig.* pp. 20, 56 n. 116 (1855); *id. Compt. Rend.* xliii. p. 837 (1856); *Rchnb. Tauben*, p. 51, t. 222. f. 2580 (1862); *Jerd. B. of Ind.* iii. p. 465 (1864); *G. R. Gr. Hand-list*, ii. p. 233, n. 9246 (1870); *Hume, Nests & Eggs*, iii. p. 498 (1875); *id. Str. F.* viii. p. 109 (1879).

Dendrotreron elphinstonii, *Rchnb. Syst. Av. Nat.* p. xxv (1852).

Lepidœnas elphinstonii, *Schleg. Mus. P.-B.* Columbæ, p. 70 (1873).

Adult male. Head grey; nuchal patch black, with small white and grey tips; lower hind neck reddish grey, with green and purple reflections; interscapular region and rest of the upper parts ruddy brown, with slight purple tinge, and becoming dark ashy on the rump and upper tail-coverts; throat whitish grey; rest of the underparts grey, with a slight metallic-green lustre on the crop-region, and slightly tinged with purple on the sides; flanks dark grey; quills brown; under surface of the wing dark grey; tail dull black: "bill and orbits deep red, the former with a yellow tip; irides ochre-yellow; legs and feet dull red" (*Jerdon*). Total length 15 to 16 inches, wing 8, tail 6, bill 0·75, tarsus 1.

Female. Similar to the male.

Young. Much duller, the upper wing-coverts have narrow rufous-chestnut edges.

Hab. Western Ghats, Deccan, and Nilghiris.

a, b. ♀ ad. et ♂ juv. sk.	Mynall, S. Travancore, Sept., Oct. (*F. Bourdillon*).	Hume Coll.
c, d. ♂ ♀ ad. sk.	Palani Hills, June (*S. B. Fairbank*).	Tweeddale Coll.
e. ♀ ad. sk.	Palani Hills, June (*S. B. Fairbank*).	Hume Coll.
f. ♀ ad. sk.	Koondahs, Nilghiris, March.	W. Davison, Esq. [P.].
g, h, i. ♂ ♀ ad. sk.	Coonoor, Oct., Nov. (*W. Davison*).	Salvin-Godman Coll.
k–o. ♂ ♀ ad. sk.	Ootacamund, March, May (*W. Davison*).	Hume Coll.
p. ♂ ad. sk.	Coffee Estate, Nilghiris, July (*Miss Cockburn*).	Hume Coll.
q–u. ♂ ♀ ad. sk.	Neddivuttum, March (*W. Davison*).	Hume Coll.
v, w. ♂ ♀ ad. sk.	Kotagherry, June (*J. Darling & Miss Cockburn*).	Hume Coll.
x, y, z. ♂ ♀ ad. sk.	Coorg, April (*W. Davison*).	Hume Coll.
a'. Ad. sk.	Deccan (*Sykes*).	India Museum [P.]. (Type of species.)
b'. Ad. sk.	Madras.	India Museum [P.].
c'. Ad. sk.	Madras.	Mr. Jerdon [P.].
d'. Ad. sk.	Madras (*R. G. W. R.*).	Tweeddale Coll.
e'. Ad. sk.	India.	Zool. Soc. Coll.

38. Columba pulchricollis.

Columba? pulchricollis, *Hodgs. in Gray's Zool. Misc.* p. 85, n. 737 (1844); *Gray, List Gallinæ Brit. Mus.* p. 9 (1844); *Blyth, J. A. S. B.* xiv. p. 866 (1845); *id. Ann. & Mag. N. H.* xix. p. 106 (1847); *G. R. Gr. Gen. B.* ii. App. p. 23 (1849); *id. List B. Brit. Mus.* Columbæ, p. 26 (1856); *id. Cat. Hodgs. Coll. Br. Mus.* 2nd ed. p. 67 (1863).

Columba elphinstonii, *G. R. Gr.* (*nec Sykes*) *Cat. Hodgs. Coll. Br. Mus.* p. 122 (1846).

Palumbus pulchricollis, *Blyth, Cat. B. Mus. A. S. B.* p. 233, n. 1414 (1849); *Gould, B. of As.* vi. pl. 58 (pt. vi., 1854); *Bp. Consp. Av.* ii. p. 42 (1854); *id. Compt. Rend.* xxxix. p. 1103 (1854), xl. p. 218, n. 115 (1855); *id. Coup d'œil Ordre Pig.* pp. 20, 56, n. 115 (1855); *Rchnb. Tauben*, i. p. 51, ii. p. 167, *Novit. Suppl.* t. ii. ff. 11, 12 (*ex Gould*) (1862); *Jerd. B. of Ind.* iii. p. 465 (1864); *Swinh. Ibis*, 1866, pp. 313, 396; *G. R. Gr. Hand-list*, ii. p. 233, n. 9245 (1870); *Swinh. P. Z. S.* 1871, p. 347; *Gieb. Thes. Orn.* i. p. 749 (1872); *David & Oust. Ois. Chine*, p. 382 (1877); *Hume, Str. Feath.* viii. p. 109 (1879).

Lepidœnas pulchricollis, *Schleg. Mus. P.-B.* Columbæ, p. 71 (1873).

Adult. Head and cheeks delicate grey; middle of the throat white; on the lower part of the neck a conspicuous collar of feathers, black at the base, and largely tipped with glossy buff,

fading into cream-white at the extremity; upper surface of the body, breast, and wing-coverts lead ashy; breast, sides of the neck, and upper back brightly glossed with changeable green and purple; abdomen grey; vent and under tail-coverts greyish buffy white; quills and rectrices dark slate-black: "irides yellow; bill red at the base, yellow at the tip; feet crimson" (*Gould*). Total length 13·5 to 14 inches, wing 8·5 to 9, tail 4·75 to 5, bill 0·74, tarsus 1.

Hab. Eastern Himalayas, Nepal, Sikhim, and the Island of Formosa.

a–d. Ad. et juv. sk.	Nepal.	B. H. Hodgson, Esq. [P.].	(Types of species.)
e, f, g. Ad. sk.	Nepal (*Hodgson*).	India Museum [P.].	(Types of species.)
h, i, k. Ad. sk.	Nepal.	B. H. Hodgson, Esq. [C.].	
l. Ad. sk.	Nepal.	Tweeddale Coll.	
m, n. ♂ ♀ ad. sk.	Native Sikhim, Sept. (*L. Mandelli*).	Hume Coll.	
o–v. ♂ ad. et ad. & juv. sk.	Sikhim, Feb., March, June, July, Oct. (*L. Mandelli*).	Hume Coll.	
w–a'. Ad. et imm. sk.	Darjeeling.	Hume Coll.	
b'. Juv. sk.	Darjeeling.	Tweeddale Coll.	
c'. Ad. sk.	Formosa, Feb. (*R. Swinhoe*).	Tweeddale Coll.	
d'. Ad. sk.	Formosa, April (*R. Swinhoe*).	Hume Coll.	
e'. Ad. sk.	Formosa.	R. Swinhoe, Esq. [C.].	
f'. Ad. sk.	Formosa (*R. Swinhoe*).	Seebohm Coll.	

39. Columba punicea.

Alsocomus puniceus, *Tick. in Bl. J. A. S. B.* xi. p. 461 (1842); *Blyth, Cat. B. Mus. A. S. B.* p. 233, n. 1411 (1849); *Layard, Ann. & Mag. N. H.* xiv. p. 58 (1854); *Hartl. J. f. O.* 1854, p. 158; *Bp. Consp. Av.* ii. p. 43 (1854); *id. Compt. Rend.* xxxix. p. 1104 (1854), xl. p. 218, n. 119 (1855); *id. Coup d'œil Ordre Pig.* pp. 20, 56, n. 119 (1855); *Rchnb. Tauben*, i. p. 52 (1862); *Jerd. B. of Ind.* iii. p. 469 (1864); *Beav. Ibis*, 1868, p. 373; *G. R. Gr. Hand-list*, ii. p. 232, n. 9229 (1870); *Holdsw. P. Z. S.* 1872, p. 466; *Ball, Str. Feath.* ii. p. 424 (1874); *Blyth & Wald. B. of Burm.* p. 145 (1875); *Armstr. Str. Feath.* iv. p. 337 (1876); *Wardl. Rams. Ibis*, 1877, p. 467; *Hume & Davis. Str. Feath.* vi. p. 418 (1878); *Ball, Str. Feath.* vii. p. 224 (1878); *Hume, Str. Feath.* viii. pp. 109, 157 (Tonka) (1879); *Oates, ibid.* p. 167 (nest and eggs) (1879); *Bingh. ibid.* p. 196 (1879); *Legge, B. of Ceyl.* p. 696 (1880); *Oates, Str. Feath.* x. p. 235 (1882); *id. B. of Brit. Burm.* ii. p. 289 (1883); *Hume, Str. Feath.* xi. p. 296 (1888).

Columba punicea, *Blyth, J. A. S. B.* xiv. 2, pp. 867, 878 (1845); *id. Ann. & Mag. N. H.* xix. p. 107 (1847); *Dunn, P. Z. S.* 1863, p. 371; *Gieb. Thes. Orn.* i. p. 749 (1872); *Salv. Cat. B. Strickl. Coll.* p. 543 (1882).

Carpophaga punicea, *G. R. Gr. Gen. B.* iii. App. p. 23 (1849).

Carpophaga puniceus, *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 23 (1856).

Alsocomus phœniceus (*sic*), *Blyth, Ibis*, 1867, p. 149.

Adult male. Upper part of the head to the occiput French grey, sharply defined behind; cheeks, throat, and neck reddish vinous, green metallic on the edges of the hind neck-feathers; back and wing-coverts cinnamon, changing into slate-grey on the rump and upper tail-coverts, and with purple-metallic lustre on the edges of the feathers; the smaller upper wing-coverts very slightly edged with metallic; underparts vinous cinnamon, with a purple tinge, slightly greenish on the crop-region; under tail-coverts slate-grey, the basal ones with a vinous or purplish tinge; quills, spurious wing and primary-coverts brown slate-colour, the primaries greyish on the outer webs; under wing-coverts vinous cinnamon; tail slate-black: "legs and feet pale purplish or lake-pink; horny part of the bill bluish white; rest of the bill and gape lake-pink; irides deep orange or pale yellow; eyelids bright red; orbital skin purplish pink" (*Hume*). Total length about 15 inches, wing 8·2, tail 6·5, bill 0·68, tarsus 1.

Female. Similar to the male, but somewhat smaller and duller; the upper part of the head darker grey, with a lilac tinge.

Young. Rufous brown, with no metallic lustre; the head rufous brown, like the back.

Hab. Eastern part of Central India, Assam, Arrakan, Tenasserim, and Malay Peninsula, near Tonka; apparently migratory in Ceylon, but this locality requires confirmation.

a. Ad. sk.	Central India.	India Museum [P.].
b. Pull. sk.		India Museum [P.].
c, d, e. ♂ ♀ ad. sk.	Maunbhoom, Dec., Jan. (*R. C. Beavan*).	Tweeddale Coll.
f. ♀ imm. sk.	Maunbhoom, Dec. (*S. B. Fairbank*).	Hume Coll.
g. ♂ ad. sk.	Cachar, May (*J. Inglis*).	Hume Coll.
h. ♂ ad. sk.	Cachar, April (*J. Inglis*).	Salvin-Godman Coll.
i, k. ♂ ad. et ad. sk.	Suddya, Assam, April (*J. Cockburn*).	Hume Coll.
l–p. ♂ ♀ ad. sk.	Dibrughur, April, July (*J. R. Cripps*).	Hume Coll.
q. ♀ ad. sk.	Sifura, Assam, Dec.	Hume Coll.
r. ♂ ad. sk.	Dollah, Assam, April (*J. Cockburn*).	Hume Coll.
s. ♂ ad. sk.	Sackwak, April (*J. Cockburn*).	Hume Coll.
t–z. ♂ ♀ ad. et juv. sk.	Tonghoo, Aug. (*R. G. W. R.*).	Tweeddale Coll.
a'. ♂ ad. sk.	Lower Pegu, Jan.	E. W. Oates, Esq. [C.].
b'. ♀ ad. sk.	China-Ba-keer, Dec. (*J. Armstrong*).	Hume Coll.
c'. Ad. sk.	Siam, Aug.	M. St. Pierre [P.].
d'. Ad. st.	Tenasserim.	J. D. C. Packman.
e'. ♀ juv. sk.	Pahpoon, Jan. (*W. Davison*).	Hume Coll.

f. ♂ ad. sk.	Thatone Creek, Dec. (*W. Davison*).	Hume Coll.
g. ♀ ad. sk.	Amherst, March (*W. Davison*).	Hume Coll.
h, *i*, *k*. ♂ ad. sk.	Salang, Feb., March (*J. Darling*).	Hume Coll.
l. ♂ juv. sk.	Usheetherrpone, Nov. (*W. Davison*).	Hume Coll.

40. Columba palumboides.

Carpophaga palumboides, *Hume, Str. Feath.* i. p. 302 (1873) (Andamans), ii. pp. 53, 263, 498 (1874), iii. p. 327 (1875), viii. p. 109 (1878); *Gieb. Thes. Orn.* iii. p. 793 (1877); *Tristr. Cat. Coll. B.* p. 42 (1889).

Ianthœnas palumboides, *Wald. Ibis*, 1873, p. 315, pl. xiii.; *Tweedd. Orn. Works*, p. 247 (1881).

Fruit Pigeon from Nicobars, *Hume, Str. Feath.* ii. p. 266 (1874), iii. p. 327 (1873).

Ianthœnas nicobarica, *Wald. Ann. & Mag. N. H.* (4) xiv. p. 157 (1874); *Hume, Str. Feath.* ii. p. 468 (1874), iii. p. 327 (1875).

Adult male. Head and neck all round a pale French grey, lighter on the head and throat; lower hind neck with some greenish reflections; feathers of the mantle shining metallic green at the tip; rest of the upper parts dusky slate-colour, each feather with a more or less narrow terminal or subterminal band, exhibiting in certain lights pale green or purplish-lilac metallic reflections; crop-region and abdomen bluish slate-grey, becoming darker or slate-grey on the under wing- and tail-coverts; quills and tail-feathers blackish slate-colour: "back and sides of tarsi and toes very pale fleshy pink; front of tarsi bright red; soles whitish; claws white; upper mandible and lower mandible to point of gonys pale whitish yellow; rest of lower mandible and cere lake-red; irides orange towards pupil, changing towards exterior margin to light red; naked orbital region pinkish lake" (*Hume*). Total length about 15 inches, wing 9·5, tail 6·5, bill 0·9, tarsus 1·1.

Female. Similar to the male.

Young. Duller and not so light on the head and neck.

Nicobar birds cannot be distinguished from the Andaman ones.

Hab. Andamans and Nicobars.

a–e. ♂ ♀ ad. et imm. sk.	Port Blair, March (*W. Davison*).	Hume Coll.
f. ♂ ad. sk.	S. Andamans, Jan. (*R. G. W. R.*).	Tweeddale Coll.
g. ♀ ad. sk.	Port Mouat, Jan. (*W. Davison*).	Hume Coll. (Type of species.)
h. ♀ ad. sk.	Perseverance Pt., Aug.	Hume Coll.
i, *k*. ♂ ♀ ad. sk.	Nicobars, March, April (*A. de Roepstorff*).	Hume Coll.
l. ♂ ad. sk.	Nancowry, Nicobars, Feb. (*W. Davison*).	Hume Coll.
m. ♂ ad. sk.	Nancowry, Nicobars, Dec. (*A. de Roepstorff*).	Hume Coll.

n. Juv. sk.	Nancowry, Nicobars, Jan. (*R. J. Wimberley*).	Tweeddale Coll.
o. ♂ ad. sk.	Trinkut, Nicobars, March (*A. de Roepstorff.*)	Hume Coll.
p. ♀ imm. sk.	Trinkut, Nicobars, Jan. (*R. J. Wimberley*).	Tweeddale Coll.
	(Types of *I. nicobarica*, Wald.)	
q. ♀ juv. sk.	Chowy Is., Nicobars, Jan. (*W. Davison*).	Hume Coll.

41. Columba versicolor.

Columba versicolor, *Kittl. Kupfertaf.* i. p. 5, pl. v. f. 2 (1832); *G. R. Gr. Gen. B.* ii. p. 470, n. 22 (1844); *Kittl. Denkwürd.* ii. p. 174 (1858).
Columba kitlitzii (*sic*), *Temm. Pl. Col.* (livr. 98, 1835); *id. Tabl. Méth.* p. 80 (1839).
Columba metallica, *Vig.* (*nec Temm.*) *Voy.* '*Blossom*,' *Orn.* p. 25 (1839); *G. R. Gr. Gen. B.* ii. p. 470, n. 21 (1844).
Carpophaga kittlitzii, *G. R. Gr. Gen. B.* ii. p. 469, n. 21 (1844); *Gieb. Thes. Orn.* i. p. 585 (1872).
Janthœnas kittlitzi, *Bp. Consp. Av.* ii. p. 45 (1854).
Janthœnas kittlitzi, *Bp. Compt. Rend.* xxxix. p. 1105 (1854), xl. p. 218, n. 123 (1855); *id. Coup d'œil Ordr. Pig.* pp. 21, 57, n. 123 (1855); *Rchnb. Tauben*, i. p. 118, t. 224. f. 1261 (*ex Kittlitz*) (1862); *G. R. Gr. Hand-list*, ii. p. 231, n. 9215 (1870).
Columba iris, *Kittl. Denkwürd.* ii. p. 75 (1858).
Janthœnas janthina, part., *Schleg. Mus. P.-B.* Columbæ, p. 74 (1873).
Carpophaga janthina, *Blakist.* (*nec Temm.*) *Chrysanth.* 1883, April, p. 174; *id. Amend. List B. Jap.* p. 44 (part.) (1884).
Janthœnas versicolor, *Stejneg. Pr. U.S. Nat. Mus.* x. p. 419 (1887).
Columba splendida, *Kittl. MS. fide Stejneg. Pr. U.S. Nat. Mus.* x. p. 420 (1887).
Carpophaga versicolor, *Seebh. P. Z. S.* 1889, p. 586; *id. Ibis*, 1890, pp. 103, 108; *id. Birds Japan. Emp.* p. 166 (1890); *Hartert, Kat. Vogelsamml.* p. 190 (1891).

Adult. Ground-colour light slate-grey; upper parts, viz. hind part of the head, nape, back, and rump, with various splendid metallic reflections, according to the light, but principally golden purple, hind neck metallic green; longer upper tail-coverts with a bronze-green lustre; underparts lighter grey than the upper ones, and in some lights with golden-green or purple lustre on the edges of the feathers; flanks with a violet lustre; wings and tail slate-colour, the upper wing-coverts with bronze-green edges: "iris dark blue; bill greenish yellow; feet dark red" (*Holst*). Total length about 18 inches, wing 10·5, tail 7·5, bill 0·85, tarsus 1·25.

Hab. Bonin Islands, perhaps confined to the Parry group.

Thanks to the authorities of the Senckenberg Museum, I have seen one of the types of the species.

a. ♂ ad. sk. Nakondo-Shima, Parry Isl., Sept. H. Seebohm, Esq. [P. I. (*P. I. Holst*).

42. Columba jouyi.

Carpophaga janthina, *Seebh. Ibis*, 1887, p. 179 (part.) (Loo-Choo Islands).
Janthœnas janthina, *Stejn.* (*nec Temm.*) *Zeitschr. ges. Orn.* iv. p. 170 (1887).
Janthœnas jouyi, *Stejn. Amer. Natural.* June 1887, p. 583; *id. Pr. U.S. Nat. Mus.* x. pp. 398, 415, 418, 419 (1887).
Carpophaga jouyi, *Seebh. Birds of the Japan. Emp.* p. 167 (1890).

Adult. Slate-black; upper part of the head slightly tinged with metallic purple; feathers of the hind neck tipped with metallic green; a broad silvery-grey crescentic band across the mantle; lower back and rump with a greenish tinge, and with the edges of the feathers with some purple gloss; crop-region with a distinct purple gloss: bill in dry skins horn greenish; feet probably dull red in the living bird. Total length about 17 inches, wing 10, tail 7, bill 0·9, tarsus 0·25.

Hab. Loo-Choo Islands.

a. Ad. sk. Loo-Choo Islands, Dec. (*Pryer*). H. Seebohm, Esq. [P.].

43. Columba janthina.

Columba janthina, *Temm. Pl. Col.* 503 (livr. 86, 1830); *Knip & Prév. Pig.* ii. pl. 16 (1838–44); *Less. Compl. de Buff., Ois.* viii. p. 104 (1837); *Blyth, Ibis*, 1867, p. 149.
Carpophaga janthina, *G. R. Gr. List of Gallinæ B. Mus.* p. 6 (1844); *id. Gen. B.* ii. p. 468, n. 13 (1844) (syn. emend.); *Rchnb. Syn. Av.* Columbariæ, f. 1289 (1847); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 23 (syn. emend.) (1856); *Swinh. P. Z. S.* 1863, p. 338; *Schleg. N. T. D.* iii. pp. 202, 203 (1866); *Gieb. Thes. Orn.* i. p. 585 (1872); *Elwes, P. Z. S.* 1873, p. 651; *Blakist. & Pryer, Tr. As. Soc. Jap.* viii. p. 205 (1880), x. p. 130 (1882); *Blakist. Amend. List B. Jap.* pp. 25, 44 (1884); *Seebh. Ibis*, 1884, p. 179, 1887, p. 179 (part.); *Sharpe, P. Z. S.* 1887, p. 515; *Tristr. Cat. Coll. B.* p. 42 (1889); *Seebh. Birds of the Japan. Emp.* p. 165 (part.) (1890).
Columba (Carpophaga) janthina, *Temm. & Schleg. Faun. Jap., Aves*, p. 161, pls. lx., c. (1849); *Blyth, Ibis*, 1867, p. 149.
Janthœnas janthina, *Rchnb. Av. Syst. Nat.* p. xxvi (1852); *Bp. Compt. Rend.* xxxix. p. 1105 (1854), xl. p. 218, n. 121 (1855); *id. Coup d'œil Ordre Pig.* pp. 21, 56, n. 121 (1855); *id. Compt. Rend.* xliii. p. 837 (1856); *Rchnb. Tauben*, i. p. 118, t. 232. f. 1289 (1862); *G. R. Gr. Hand-list*, ii. p. 230, n. 9209 (1870); *Schleg. Mus. P.-B.* Columbæ, p. 74 (syn. emend.) (1873); *Stejneg. Zeitschr. ges. Orn.* iv. p. 170 (1887); *id. Pr. U.S. Nat. Mus.* x. pp. 399, 415, 419, 483 (1887); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 282 (1890).
Janthœnas janthina, *Bp. Consp. Av.* ii. p. 44 (1854) (syn. emend.).
Muscadivora janthina, *Schleg. Dierent.* p. 210 (1864).
Turtur (*errore*) janthina, *Swinh. Ibis*, 1876, p. 334.

Adult male. General plumage slate-black, with purple-metallic reflections on the edges of the feathers of the head, back, and rump, the metallic reflections being golden green on the neck and

crop-region; on the rest of the under surface and on the wing-coverts the reflections are not so strong, and, according to the light, green or purple; lower back, rump, scapulars, and wing-coverts with a bronze lustre; under wing-coverts, quills, and tail slate-black, the quills browner underneath, and with the outer webs slightly edged with brown: bill dark bluish; "iris brown" (*Capt. St. John*); feet reddish. Total length about 17 inches, wing 9·6, tail 6·8, bill 0·75, tarsus 1·3.

Female. Similar to the male, only perhaps not so brightly coloured.

Young. Brown, with slight metallic-green edges to the feathers of the nape and scapulars, while those of the mantle are purple.

None of the specimens mentioned below show the slate-grey colour, more or less faded to russet-brown, mentioned by Mr. Seebohm.

Hab. Japan and Loo-Choo Islands.

a, *b*. Ad. st. et juv. sk.	Japan.	Leyden Museum [P.].
c, *d*. ♂ ad. sk.	Nagasaki, Japan, March, Nov.	F. Ringer, Esq. [P.].
e. ♂ ad. sk.	W. coast of Japan, Sept. (*Capt. St. John*).	Hume Coll.
f. Ad. sk.	Hamilton Is.	A. G. Wilday, Esq. [P.].

44. Columba nitens.

Columba janthina, *Kittl.* (*nec Temm.*) *Kupfert.* i. p. 5, pl. v. f. 1 (1832) (Boninshima); *id. Denkwürd.* ii. p. 174 (1858); *Seebh. Ibis*, 1891, p. 190 (Sulphur Isl.).

Columba nitens, *Kittl. MS. fide Stejneger.*

Janthœnas nitens, *Stejneg. Pr. U.S. Nat. Mus.* x. p. 421 (1887) (Boninshima); *id. Auk*, 1891, p. 100.

Carpophaga ianthina, part., *Seebh. Ibis*, 1890, p. 102; *id. Birds of Japan. Emp.* p. 165 (1890); *Hartert* (*nec Temm.*), *Kat. Vogel-samml.* p. 190, n. 2862 (1891).

Similar to *C. janthina*, but smaller, with the underparts lighter slaty grey and less glossed with green and purple, and with the head and throat of a dull cinnamon-chocolate, glossed with lilac on crown and occiput. Total length about 15·5 inches, wing 8·6 to 9·3, tail 6·3, bill 0·8, tarsus 1·4.

Hab. Bonin Islands—Parry group, Bailey Islands, and Sulphur Islands.

Besides one of the types of the species, kindly sent for my inspection to the British Museum by the authorities of the Senckenberg Museum, I have seen a series of nine specimens belonging to Mr. Seebohm, and collected by Mr. Holst in the Parry group, Bailey Islands, and Sulphur Islands. They belong to both sexes, and some are very young. The latter are slate-black, with a rufous-brown tinge at the tips of the feathers of the head, and with a purple tinge on the edges of the feathers of the mantle; the interscapular feathers have a slight bronze-purple gloss. The young bird is quite different from the young of *C. janthina* from Japan, which is not *slate-black* but *brown*.

In a more advanced stage the head shows a rufous-purplish tinge, the green edges on the mantle-feathers are better pronounced, and the purple edges on the feathers of the back and rump are strongly marked.

In fully adult birds *freshly moulted* the head and throat have a dull chocolate-colour glossed with purple or lilac.

Two specimens, a female from Nakondo-shima, Parry Islands, October, and a male from Aneshima, Bailey Islands, June, have lost the chocolate-colour on the head, which is slate-grey, with a purple or lilac gloss; but the second has still some remains of the chocolate-colour, which I think most probably is *lost* by *abrasion* of the feathers, and not *gained* by *abrasion*, as supposed by Mr. Seebohm.

a. ♂ ad. sk.	Parry Isl., Bonin, Oct. (*P. A. Holst*).	H. Seebohm, Esq. [P.]
b. ♀ imm. sk.	Bailey Isl., Bonin, June (*P. A. Holst*).	H. Seebohm, Esq. [P.]

45. Columba metallica.

Columba metallica, *Temm. Pl. Col.* 562 (livr. 95, 1835); *Less. Compl. de Buff., Ois.* viii. p. 42 (1837); *id. op. cit.* 2nd ed. p. 280 (1838); *Temm. & Müll. Verh. Land- en Volkenk.* p. 209 (Timor) (1839–44).

Carpophaga metallica, *G. R. Gr. Gen. B.* ii. p. 469, n. 19 (1844); *Rchnb. Syn. Av.* Columbariæ, f. 1290 (1847); *Schleg. N. T. D.* iii. p. 201 (1866); *Gieb. Thes. Orn.* i. p. 586 (1872); *Tristr. Cat. Coll. B.* p. 42 (1889).

Janthœnas metallica, *Rchnb. Av. Syst. Nat.* p. xxv (1852); *Bp. Compt. Rend.* xxxix. p. 1105 (1854), xl. p. 218, n. 122 (1855); *id. Coup d'œil Ordr. Pig.* pp. 21, 57, n. 122 (1855); *Wall. Ibis*, 1861, pp. 348, 350; *Rchnb. Tauben*, i. p. 118, t. 231. f. 1290 (1862); *Wall. P. Z. S.* 1863, p. 486; *id. Ibis*, 1865, pp. 388, 398; *id. J. f. O.* 1866, p. 282; *G. R. Gr. Hand-list*, ii. p. 230, n. 9210 (1870); *Schleg. Mus. P.-B.* Columbæ, p. 75 (1873).

Janthœnas metallica, *Bp. Consp. Av.* ii. p. 44 (1854).

Adult male. General plumage slate-black; upper part of the head, neck, and crop-region metallic purple-violet, rest of the upper parts with metallic golden-green edges to the feathers; throat and cheeks slate-grey, with slight purple edges to the feathers of the latter: "base of bill red, tip pale yellow horny; iris orange; orbits red; feet dull red; claws pale" (*Wallace*). Total length about 16·5 inches, wing 10·2, tail 6·5, bill 0·8, tarsus 0·95.

Hab. Timor.

a, *b*. ♂ ad. sk.	E. Timor.	Wallace Coll.

46. Columba griseigularis.

Carpophaga metallica, part., *Schleg. N. T. D.* iii. pp. 202, 203 (Luzon) (1866).

Ianthœnas griseogularis, *Wald. & Layard, Ibis*, 1872, p. 104, pl. vi. (Guimaras); *Sclat. Ibis*, 1874, p. 455; *Wald. Tr. Zool. Soc.* ix. pp. 218, 251 (1875); *Sharpe, Tr. Linn. Soc., Zool.* i. p. 353 (1876); *Tweedd. P. Z. S.* 1878, p. 288 (Negros), 1879, p. 73 (Basilan); ? *Sharpe, P. Z. S.* 1879, p. 316 (Sooloo I.); *Tweedd. Orn. Works*, pp. 117, 121, 381, 412, 594, 651 (1881); *Wardl. Rams. Tweedd. Orn. Works*, pp. 659, 666 (1881); *Guillem. P. Z. S.* 1885, p. 271 (Sulu); *Everett, Ibis*, 1887, p. 363 (Tiga Is., North of Labuan); *id. Journ. Str. Br. R. As. Soc.* 1889, p. 195; *Steere, List Philipp. Birds*, p. 24 (Mindanao) (1890); *Blas. J. f. O.* 1890, p. 145.

Janthœnas luzoniensis, *Schleg. Mus. P.-B.* Columbæ, p. 75 (Luzon) (1873); *Sclat. Ibis*, 1874, p. 455.

Carpophaga griseigularis, *Tristr. Cat. Coll. B.* p. 42 (1889).

Adult. "Upper surface of head from bill to nape grey, brilliantly tinted with light purple; chin, cheeks, ear-coverts, and throat pale grey, faintly tinged on sides of head with vinous; nape and neck green, but changing in some lights to ashy tinted with bright purple; breast beautiful, uniform, bright purple, changing in some lights to greenish ashy, as in shot silk; abdomen, flanks, thigh-coverts, ventral region, and under tail-coverts dark ashy, many of the feathers being edged with the purple colour of the breast: back and uropygium ashy brown, shot with the bright purple of the breast, and changing to greenish ashy; scapulars and wing-coverts brown, with distinct purple margins; quills, rectrices, and upper tail-coverts ashy brown, paler on under surface: feet red; bill red at base and yellow at the tip. Wing 8·50 inches, tail 6·75, bill 0·81, tarsus 1·12." (*Walden & Layard.*)

Hab. Philippine Islands, from Luzon to Mindanao, and also N. Borneo and Sulu Islands.

a, b. Ad. et juv. sk.	Tampassuk R., N. Borneo.	W. Prettyman, Esq. [P.].
c. Ad. sk.	Pulau Tiga, off N. coast of Borneo, April.	A. H. Everett, Esq. [C.].
d. ♀ ad. sk.	Guimaras, March (*A. B. Meyer*).	Tweeddale Coll. (Type of species.)
e. Ad. sk.	Negros.	Tweeddale Coll.
f. ♂ ad. sk.	Valencia, Aug. (*A. H. Everett*).	Tweeddale Coll.
g. ♀ ad. sk.	Basilan, May (*A. H. E.*).	Tweeddale Coll.
h. ♀ ad. sk.	Basilan, May (*A. H. E.*).	Salvin-Godman Coll.
i. Ad. sk.	Sulu Is.	H. Veitch, Esq. [P.].

47. Columba albigularis.

Janthœnas albigularis, *Bp. Compt. Rend.* xxxix. p. 1105 (ex Gilolo) (1854), xl. p. 218, n. 125 (1855); *id. Coup d'œil Ordr. Pig.* pp. 21, 56, n. 125 (1855).

Carpophaga (*errore pro* Columba ?) albigularis, *Temm. Mus. Lugd.* 1849 (*Bp. Consp. Ac.* ii. p. 44) (ex Gilolo et Ceram) (1854).

Janthœnas halmaheira, *Bp. C. Av.* ii. p. 44 (Gilolo and Ceram) (1854).
Carpophaga albogularis, *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 24 (Louisiade Isl.) (1856).
Janthœnas halmacheira (*sic*), *Bp. Compt. Rend.* xliii. p. 837 (Gilolo) (1856).
Janthœnas leucolæma, *Bp. in Mus. Brit.* 1850 (*Compt. Rend.* xliii. p. 837, Ceram) (1856).
Carpophaga albigularis, *G. R. Gr. P. Z. S.* 1858, p. 196 (New Guinea and Louisiade Isl.); *id. Cat. B. New Guin.* p. 61 (1859); *id. P. Z. S.* 1860, p. 361 (Gilolo), 1861, p. 437 (New Guinea, Louisiade Isl., Waigiou, and Mysol); *Finsch, Neu-Guin.* p. 178 (Halmahera and Louisiade Isl.) (1865).
Janthœnas albigularis, *Rchnb. Tauben*, i. p. 118, sp. 295 (Gilolo and Ceram) (1862), ii. p. 183, sp. 295, t. vi. ff. 66–67 (1862); *Salvad. Ann. Mus. Civ. Gen.* ix. p. 203, n. 58 (1876); *Sharpe, Journ. Linn. Soc., Zool.* xiii. p. 503 (1877); *Lenz, J. f. O.* 1877, p. 379; *Rams. Pr. Linn. Soc. N. S. W.* iii. p. 293 (1878), iv. p. 101, n. 120 (1879); *Rosenb. Malay. Archip.* p. 407 (1879); *Salvad. Ann. Mus. Civ. Gen.* xiv. p. 662 (Kei) (1879); *Sharpe, Journ. Linn. Soc., Zool.* xvi. p. 446 (1882); *Salvad. Orn. Pap. e Mol.* iii. pp. 120, 560 (1882); *Pleske, Bull. Acad. Pétersb.* xxix. p. 535 (Ternate) (1884); *Sharpe, in Gould's B. New Guin.* pt. xxv. pl. 6 (1888); *De Vis, Ann. Rep. Brit. New Guin.* p. 62 (1890) (Mount Gleeson, at 1600 feet); *id. Colon. Papers*, n. 103, p. 116 (1890); *id. Ibis*, 1891, p. 41; *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 59 (*Agg. Orn. Pap. e Mol.* p. 185) (1891).
Carpophaga halmaheræ, *Finsch, Neu-Guin.* p. 178 (Ceram, Halmahera, Batchian) (1865).
Janthœnas halmaheira, *Wall. Ibis*, 1865, p. 388, n. 79, p. 398 (Gilolo, Waigiou, Mysol); *id. J. f. O.* 1866, p. 282.
Janthœnas albogularis (*errore pro* leucolæma), *Wall. Ibis*, 1865, p. 389, n. 80, p. 398 (Ceram); *id. J. f. O.* 1866, p. 282.
Carpophaga albigularis, *Schleg. N. T. D.* iii. p. 206 (Halmahera, Ternate, Morotai, Raou, Ceram) (1866); *Gieb. Thes. Orn.* i. p. 583 (1872); *Rosenb. Malay. Archip.* p. 323 (1879); *Tristr. Cat. Coll. B.* p. 269 (1889).
Columba albigularis, *Temm. Mus. Lugd.* (*Schleg. l. c.*).
Janthœnas leucosoma (*errore pro* leucolæma), *Schleg. l. c.*
Janthœnas leucolæma, *G. R. Gr. Hand-list*, ii. p. 230, n. 9212 (Louisiade Isl., Waigiou, Mysol) (1870); *Garrod, P. Z. S.* 1875, p. 367; *Sclat. List Vert. An.* 8th ed. p. 449 (1883).
Janthœnas halmaheira, *G. R. Gr. Hand-list*, ii. p. 231, n. 9213 (Gilolo) (1870).
Carpophaga leucolæma, *Gieb. Thes. Orn.* i. p. 586 (1872).
Janthœnas albigularis, *Schleg. Mus. P.-B.* Columbæ, p. 75 (Morotai, Raou, Halmahera, Ternate, Bouru, Ceram, Salawatti, New Guinea) (1873).
Carpophaga halmaheræ, *Rosenb. Reist. naar Gelvinkb.* p. 8 (1875).
Janthœnas rawlinsonii, *Sharpe, Nature*, 12 Aug., 1876, p. 339 (Laloki River); *Rams. Pr. Linn. Soc. N. S. W.* iii. p. 76 (1878).
Carpophaga halmaheira, *Tristr. Cat. Coll. B.* p. 42 (1889).

Adult. Blackish slate-colour; cheeks and throat white; edges of the feathers of the crown, neck, back, rump, and lower parts metallic purple, changing into green; edges of the upper wing-coverts and of the longer upper tail-coverts narrower and greener;

under wing-coverts scarcely edged with purple; quills and rectrices slate-black: "bill red, tip white; iris ochre-orange; orbits red; feet dull coral-red, claws pale" (*Wallace*). Length 14·5 inches, wing 9·5, tail 5·5, bill 0·8, tarsus 1·10.

Young. Throat ashy, metallic edges of the feathers less conspicuous; crown, lower part of the front neck, and upper breast brownish; bill and feet brown.

Hab. From the Halmahera and Amboyna groups through the Papuan Islands to the Louisiades.

a. Ad. sk.	E. Gilolo.	Wallace Coll.
b. ♂ ad. sk.	Gilolo.	Wallace Coll.
c, *d*. Ad. et imm. sk.	Batchian?	Tweeddale Coll.
e. ♂ ad. sk.	Cajeli, Bouru, Nov. (*H. O. Forbes*).	Salvin-Godman Coll.
f. Juv. sk.	Mysol.	Salvin-Godman Coll.
g. ♂ ad. sk.	Waigiou.	Wallace Coll.
h. Ad. sk.	Waigiou?	Salvin-Godman Coll.
i. Ad. sk.	[Aru Is.]	Tweeddale Coll.
k. Ad. sk.	S.E. New Guinea, June (*A. Goldie*).	Tweeddale Coll.
l. Ad. sk.	S.E. New Guinea (*A. Goldie*).	Salvin-Godman Coll.
m. ♂ ad. sk.	Sogeri, S.E. New Guinea.	H. O. Forbes, Esq. [C.].
n. Ad. sk.	Port Moresby. (Type of *J. rawlinsoni*, Sharpe.)	O. C. Stone, Esq. [C.].
o. Ad. sk.	Near Port Moresby (*A. Goldie*).	Salvin-Godman Coll.
p. Ad. sk.	Port Moresby.	A. Goldie, Esq. [C.].
q. Ad. sk.	Louisiade Archipelago.	J. McGillivray, Esq. [C.].

48. Columba hypœnochroa.

Ianthœnas hypœnochroa, *Gould, P. Z. S.* 1856, p. 136 (Isle of Pines); *Bp. Compt. Rend.* xliii. p. 837 (1856); *Marie, Act. Soc. Linn. Bord.* xxvii. p. 328 (1870); *Marie, Ibis*, 1877, p. 362; *Tristr. Ibis*, 1879, pp. 184, 193; *Layard, Ibis*, 1880, p. 231 (Lifu); *Layard, Ibis*, 1881, p. 133, 1882, pp. 528, 544; *Schal. J. f. O.* 1887, p. 244.

Carpophaga hypoinochroa, *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 24 (1856).

Carpophaga (Ianthœnas) hypœnochroa, *G. R. Gr. P. Z. S.* 1859, p. 165; *Verr. & Des Murs, Rev. et Mag. de Zool.* 1860, p. 436.

Carpophaga (Ianthœnas) hypoinochroa, *G. R. Gr. List B. Trop. Isl.* p. 42 (1859).

Janthœnas hypænochroa, *Rchnb. Tauben*, ii. pp. 183, 200 (1862).

Yanthœnas (*sic*) vitiensis, *Verr. & Des Murs* (*nec Q. & G.*), *Rev. et Mag. de Zool.* 1862, p. 130 (New Caledonia).

Columba, sp. 6, *Jouan, Mém. Soc. Cherb.* ix. p. 96 (1863).

Columba vitiensis, *Jouan* (*nec Q. & G.*), *t. c.* p. 231 (1863).

Janthœnas hypoinochroa, *G. R. Gr. Hand-list*, ii. p. 231, n. 9214 (1870); *Schleg. Mus. P.-B.* Columbæ, p. 77 (1873).

Carpophaga hypænochroa, *Gieb. Thes. Orn.* i. p. 585 (1872).

Carpophaga hypœnochroa, *Tristr. Cat. Coll. B.* p. 42 (1879).

Janthœnas hypœnochroa, *Wiglesw. Aves Polynes.* p. 53, n. 272 (1891).

Adult male (type). Upper part of the head, neck, and under-

parts chestnut-purple, with metallic-purple edges, especially to the feathers of the upper part of the head, neck, and crop-region; rest of the upper parts dark slate-grey, with broad metallic-green edges and purple reflections to the feathers of the back and rump; the smaller upper wing-coverts with narrow metallic edges; primaries slate-brown; tail almost black, under tail-coverts dark grey, washed with chestnut; cheeks, ear-coverts, and throat pure white: "bill pink with grey-buff tip; eyelids, legs, and feet pink; claws drab; iris raw sienna" (*Layard*). Total length 16 inches, wing 9·5, tail 6·5, bill 0·8, tarsus 1·1.

Female. Differs from the male in having the head and neck with no chestnut-purple colour, but slate-black with the edges of the feathers metallic-purple, more or less with green reflections; the underparts also are much duller, having the feathers slate-grey, edged with chestnut; under tail-coverts dark grey, more or less washed with chestnut; cheeks and throat white, finely powdered with grey.

Hab. Isle of Pines, New Caledonia, and Loyalty Islands (Lifu and Maré).

a. Ad. sk.	Isle of Pines, Oct.	J. McGillivray, Esq. [C.]. (Type of species.)
b, *c*. ♀ ad. sk.	Noumea, New Caledonia, July.	Salvin-Godman Coll.
d. ♀ ad. sk.	New Caledonia, May.	J. McGillivray, Esq. [C.].
e. Ad. sk.	Loyalty Is.	Rev. J. S. Whitmee [C.].

49. Columba vitiensis.

Columba vitiensis, *Quoy & Gaim. Voy. Astrol., Zool.* i. p. 246, pl. xxviii. (1830); *Peale, U.S. Expl. Exp*, *Birds*, p. 187 (1848); *Hartl. Archiv f. Natury.* 1852, pp. 114, 134; *id. J. f. O.* 1854, p. 169; *Cass. Pr. Ac. Nat. Sc. Philad.* 1854, p. 232; *id. U.S. Expl. Exp.*, *Birds*, 2nd ed. p. 251 (1858); *Hartl. Ibis*, 1864, p. 232; *Finsch & Hartl. Fauna Centralpolyn., Orn.* pp. 137, 279, t. xi. f. 2 (1867); *Layard, P. Z. S.* 1875, pp. 30, 151, 430, 437; *id. Ibis*, 1876, p. 392; *Cab. & Rchnw. J. f. O.* 1876, p. 325 (Ovalau); *Finsch, P. Z. S.* 1877, p. 736 (Kandavu); *Nehrk. J. f. O.* 1879, p. 407 (egg); *Finsch, Voy. Challeng., Birds*, p. 51 (1881); *Rchnw. J. f. O.* 1891, p. 127.

Carpophaga vitiensis, *G. R. Gr. Gen. B.* ii. p. 469, n. 26 (1844); *Rchnb. Syn. Av.* Columbariæ, f. 1288 (1847); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 23 (1856); *Gieb. Thes. Orn.* i. p. 588 (1872); *Tristr. Cat. Coll. B.* p. 43 (1889).

Janthœnas vitiensis, *Rchnb. Av. Syst. Nat.* p. xxv (1852); *Bp. Compt. Rend.* xxxix. p. 1105 (1854), xl. p. 218, n. 124 (1855); *id. Coup d'œil Ordr. Pig.* pp. 21, 56. n. 124 (1855); *Rchnb. Tauben*, i. p. 118, t. 231. f. 1288 (1862), ii. p. 183 (1862); *G. R. Gr. Hand-list*, ii. p. 230, n. 9211 (1870); *Schleg. Mus. P.-B.* Columbæ, p. 77 (1873); *North, Pr. Linn. Soc. N. S. W.* (2) ii. p. 448 (1887); *Wiglesw. Aves Polynes.* p. 53, n. 274 (1891).

Janthœnas vitiensis, *Bp. Consp. Av.* ii. p. 44 (1854).

Carpophaga (Ianthœnas) vitiensis, *G. R. Gr. List B. Trop. Isl.* p. 42 (1859); *Rams. Pr. Linn. Soc. N. S. W.* i. p. 76 (1875).

Columba viticensis (*sic*), *Blyth, Ibis*, 1870, p. 173.

Adult male. Upper parts slate-grey, the edges of the feathers broader on the hind neck and mantle, with metallic-green reflections, changing into purple-violet in some lights; forehead distinctly grey; cheeks, ear-coverts, and throat pure white; rest of the underparts rich vinous, with some greenish reflections on the front neck and crop-region; under tail-coverts slate-grey; primaries and tail slate-black. Total length about 14·5 inches, wing 8·7, tail 5·5, bill 0·8, tarsus 0·1.

Female. Similar to the male, but duller and with the underparts less vinous.

Young. Similar to the female, but with the upper parts brown-slate, and with the underparts rufous-brown, almost chestnut towards the abdomen: "iris brown" (*Layard*).

Hab. Fiji Islands—Ovalau, Wakaja, Mokani, Vanua Levu, Taviuni, Lomaloma, Mango, Viti Levu, Kandavu.

a–e. ♂ ♀ ad. et juv. sk.	Ovalau, Nov. (*E. L. Layard*).	Tweeddale Coll.
f, g. ♂ ad. sk.	Kandavu.	'Challenger' Exped.
h, i. ♂ ♀ ad. sk.	Kandavu, Aug. (*E. L. Layard*).	Tweeddale Coll.
k. ♂ ad. sk.	Levuka, Aug. (*E. L. Layard*).	Tweeddale Coll.
l. Ad. sk.	Taviuni, Fiji (*Liardet*).	Salvin-Godman Coll.
m. ♀ imm. sk.	Rewa, Fiji (*V. Williamson*).	Tweeddale Coll.
n. ♀ imm. sk.	Angua, Fiji.	J. McGillivray, Esq. [P.].
o. ♂ ad. sk.	Mt. Drekette, Fiji.	Tweeddale Coll.
p. ♀ ad. st.	Ngau Is., Fiji (*Ranger*).	Voy. of H.M.S. 'Herald.'

50. Columba leopoldi.

Ianthœnas hypœnochroa, *Layard* (*nec Gould*), *Ibis*, 1878, pp. 276, 280 (New Hebrides).

Ianthœnas leopoldi, *Tristr. Ibis*, 1879, p. 193 (Vaté Island, New Hebrides); *Rchnw. & Schal. J. f. O.* 1879, p. 424; *Schmeltz, Verh. Ver. Hamb.* 1877 (1879), p. 78; *Layard, Ibis*, 1881, p. 136 (Aneiteum); *Wiglesw. Aves Polyn.* p. 53, n. 273 (1891).

Carpophaga leopoldi, *Tristr. Cat. Coll. B.* p. 42 (1889).

Female (type). Upper parts slate-colour, with the edges of the feathers of the crown, occiput, nape, back, and rump of an amethyst-colour; anterior half of the upper part of the head uniform slate-colour, with no metallic edges; throat and cheeks whitish, powdered with grey; underparts slate-colour, with the edges of the feathers dull rufous-chestnut; the crop-region with dark amethyst lustre; sides, flanks, and under tail-coverts slate-colour; upper wing-coverts slate-colour, with the narrow metallic edges lighter, and in some lights green; quills and tail brown slate-colour: "bill and legs coral-red; iris red." Total length about 15·5 inches, wing 9, tail 6·2 (not 9·2 as stated by Canon Tristram), bill 0·9, tarsus 1·2. (*Mus. Tristram.*)

Hab. New Hebrides—Vaté, Erromango, Ambrym, Mallicolo, St. Bartholomew, Santo, Api, and Aneiteum (*Layard*).

I do not quite understand this species. The type in Canon Tristram's collection, and two other specimens from Erromango, which I have seen, scarcely show any difference from not fully adult females of *C. hypœnochroa* from New Caledonia; but there is a specimen from Aneiteum in Tristram's collection which looks fully adult, and which has the general plumage slate-colour, with the edges of the feathers of the upper parts metallic green, with a slight amethyst gloss on the hind neck, and the underparts slate-grey, with a green gloss on the crop-region, and *no rufous-chestnut tinge whatever*, so that it has a great resemblance to *C. castaneiceps* from the Samoa Islands. This specimen is considered by Canon Tristram to be *very adult*.

a. Ad.? sk. Erromango, New Hebrides, Nov. Tweeddale Coll.

51. Columba castaneiceps.

Columba castaneiceps, *Peale, U.S. Expl. Exp.* viii. p. 187, pl. 50 (1848) (Upolu); *Hartl. Arch. f. Naturg.* 1852, pp. 114, 134; *id. J. f. O.* 1854, p. 169; *Cass. U.S. Expl. Exp., Birds*, p. 252, pl. xxiii. (1858); *Finsch & Hartl. Orn. Centralpol.* p. 139 (1867); *Finsch, J. f. O.* 1872, p. 47; *Whitmee, Ibis*, 1875, p. 447; *Layard, P. Z. S.* 1876, p. 496; *Finsch, P. Z. S.* 1877, p. 737; *id. Voy. Challeng., Birds*, p. 52 (1881).

Janthœnas castaneiceps, *Bp. Consp. Av.* ii. p. 45 (1854).

Janthœnas castaneiceps, *Bp. Compt. Rend.* xxxix. p. 1105 (1854), xl. p. 218, n. 126 (1855); *id. Coup d'œil Ordr. Pig.* pp. 21, 56, n. 126 (1855); *Rchnb. Tauben*, i. p. 118 (1862), ii. p. 183, *Novit. Suppl.* t. vi. f. 68 (1862); *G. R. Gr. Hand-list*, ii. p. 231, n. 9216 (1870); *Schleg. Mus. P.-B.* Columbæ, p. 77 (1873); *Tristr. Ibis*, 1879, pp. 193, 194; *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 282 (1890); *Wiglesw. Aves Polynes.* p. 54, n. 275 (1891).

Columba vitiensis, part., *Cass. U.S. Expl. Exp., Birds*, p. 251 (young) (1858); *Finsch & Hartl. Orn. Centralpol.* p. 138 (part., young) (1867); *Finsch, J. f. O.* 1872, pp. 32, 46 (Upolu); *Whitmee, Ibis*, 1875, p. 442; *Layard, P. Z. S.* 1876, p. 496 (Navigator's Isl.).

Carpophaga (Janthœnas) castaneiceps, *G. R. Gr. List B. Trop. Isl.* p. 42 (1859).

Carpophaga castaneiceps, *Gieb. Thes. Orn.* i. p. 584 (1872); *Tristr. Cat. Coll. B.* p. 42 (1889).

Janthœnas vitiensis, *Rams. (nec Q. & G.) Pr. Linn. Soc. N. S. W.* ii. p. 140 (1877) (Samoa Isl.).

Adult male. General plumage slate-grey, both above and underneath, but the feathers of the upper parts with green metallic edges, which show purple reflections on the neck and crop-region; upper part of the head dark purple-chestnut; throat and cheeks white: "iris, narrow eyelids, bill, and feet red" (*Gräffe*). Total length about 14·5 inches, wing 8, tail 5·8, bill 0·86, tarsus 1.

Female. Similar to the male (*Finsch*).

Hab. Samoa Islands—Upolu, Manono, Apolima, Savai.

a. ♂ ad. sk. Upolu, Samoa (*Godeffroy Mus.*). Salvin-Godman Coll.
b. Ad. sk. Samoa (*Rev. J. S. Whitmee*). Tweeddale Coll.

52. Columba pallidiceps.

Ianthœnas pallidiceps, *Rams. Pr. Linn. Soc. N. S. W.* ii. p. 248 (1877) (Duke of York Islands) (cf. *Pr. Linn. Soc. N. S. W.* i. p. 374); *Salvad. Orn. Pap. e Mol.* iii. p. 125 (1882).

"Like *I. metallicus* (*sic*), Temm., but having the whole head and throat white.

"The whole of the head and throat white, with a faint opaline rosy tint in certain lights; the quills of the wings and tail, the primary-coverts above, the under wing-coverts, outer series of the under tail-coverts slaty black; the neck and all the upper and under surface of the body, upper tail- and wing-coverts slaty black at the base, but broadly margined at the tips of the feathers with a rich opaline rosy tint, greenish in reflected lights. The basal portion of the bill, bare space round the eye, and the cere red; tip of the bill horn-yellow; legs and feet red, claws yellow at the base, brownish at the tip. Total length 16 inches; wing 9; tail 5; tarsus 1·1: bill from forehead 1·4 (!), from gape 1·5, from cere 0·75." (*Ramsay.*)

Hab. Duke of York Islands.

Unknown to me.

53. Columba philippana.

Ianthœnas philippanæ (!), *Rams. Pr. Linn. Soc. N. S. W.* vi. p. 721 (1881), vii. pp. 38, 669 (Ugi, St. Cristoval) (1882); *Nature*, vol. 25, p. 282; *Salvad. Ann. Mus. Civ. Gen.* xviii. p. 429, n. 13 (1882); *id. Orn. Pap. e Mol.* iii. p. 560 (1882); *Rchnw. & Schal. J. f. O.* 1883, p. 404; *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 59 (*Agg. Orn. Pap. e Mol.* p. 185) (1891).

Adult male. "The head, nape, throat, and upper part of the neck French grey with an opaline rosy lustre; the wings and tail above and below blackish slate-blue, almost black; all the rest of the plumage light bluish slate-colour, burnished with metallic reflection of rich green and pale rose. The upper and under wing- and tail-coverts like the wings and tail, but margined with the same metallic colours as the body; in reflected light the tint is rich rose, by transmitted light rich bright green: 'bill coral-red, feet bright deep yellow; iris rich yellow, skin round the eye above reddish yellow, below light bluish grey' (*A. Morton*). Total length 15·2 inches; wing 9·5; tail 6; tarsus 1·2; bill from forehead 1·3 (!), from nostrils 0·8, from gape 1·4." (*Ramsay.*)

"Although closely allied to *Ianthœnas pallidiceps*, it differs from the type in the ground or non-metallic colours of the feathers of the body being light slate-blue, and not *blackish brown*, and the rose-colour of a much brighter tint, not inclining to purple." (*Ramsay.*)

Hab. Ugi, Solomon Islands.

Unknown to me.

54. Columba leucomela.

Norfolk Pigeon, *Lath. Syn. Suppl.* ii. Add. p. 374 (1802); *id. Gen. Hist.* viii. p. 30 (1823).

Columba norfolciensis*, *Lath. Ind. Orn. Suppl.* p. lx, n. 6 (1802); *Vieill. N. D.* xxvi. p. 367 (1818); *id. Enc. Méth.* i. p. 377 (1823); *Desm. Dict. Sc. Nat.* xl. p. 376 (1826); *Wagl. Syst. Av.* Columba, sp. dub. 5 (1827).

Columba leucomela, *Temm. Tr. Linn. Soc.* xiii. p. 126 (1821) (New Holland); *id. Pl. Col.* 186 (livr. 32, 1823); *Steph. Gen. Zool.* xiv. p. 284 (1826); *Desm. Dict. Sc. Nat.* xl. p. 314 (1826); *Less. Compl. de Buff., Ois.* viii. p. 77 (1837); *id. op. cit.* 2nd ed. p. 290 (1838); *Knip & Prév. Pig.* ii. pl. 28 (1838–43).

Columba leucomelana, *Wagl. Syst. Av.* Columba, sp. 56 (1827).

Carpophaga leucomela, *Gould, B. of Austr.* v. pl. 59 (pt. xii., 1843); *Rchnb. Vög. Neuholl.* p. 272 (1850); *Elsey, P. Z. S.* 1857, p. 27 (Point Pearce); *Gieb. Thes. Orn.* i. p. 586 (1872).

Carpophaga norfolciensis, *G. R. Gr. List of Gallinæ B. M.* p. 5 (1844); *id. Gen. B.* ii. p. 468, n. 5 (1844); *Rchnb. Syn. Av.* Columbariæ, ff. 1280–82 (1847); *Cass. Pr. Ac. Nat. Sc. Philad.* 1854, p. 232; *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 24 (1856); *G. R. Gr. Ibis*, 1862, p. 232; *Pelz. Novara Reis., Vög.* p. 107 (1865); *Schleg. Mus. P.-B.* Columbæ, p. 103 (1873); *Rams. Pr. Linn. Soc. N. S. W.* ii. p. 195, n. 518 (1878); *id. Tab. List*, p. 18, n. 531 (1888); *Hartert, Kat. Vogelsamml.* p. 190 (1891).

Alsocomus leucomelas, *Blyth, Cat. B. Mus. A. S. B.* p. 233, n. 1412 (1849).

Myristicivora norfolcensis, *Rchnb. Av. Syst. Nat.* p. xxvi (1852); *id. Tauben*, i. p. 117, t. 229. ff. 1280–82 (1862).

Leucomelæna norfolciensis, *Bp. Consp. Av.* ii. p. 44 (1854); *Gould, Handb. B. Austr.* ii. p. 112 (1865); *G. R. Gr. Hand-list*, ii. p. 231, n. 9228 (1870); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 12 (1873); *Rams. P. Z. S.* 1876, p. 115; *Salv. Cat. B. Strickl. Coll.* p. 554 (1882); *Tristr. Cat. Coll. B.* p. 43 (1889); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 283 (1890).

Leucomelœna norfolciensis, *Bp. Compt. Rend.* xxxix. p. 1104 (1854), xl. p. 218, n. 120 (1855); *id. Coup d'œil Ordr. Pig.* pp. 20, 56, n. 120 (1855).

Leucomelaina norfolciensis, *Rchnb. Tauben*, i. p. 53, t. 229. ff. 1280–82 (1862).

Myristicivora norfolciensis, *Rchnb. Tauben*, ii. p. 200 (1862).

Muscadivora leucomelana, *Schleg. Dierent.* p. 210 (1864).

Adult male. Head, neck, breast, and abdomen white, washed with buff; throat white; all the upper surface, wings, and tail slate-black, all the feathers of the back, rump, and lower wing-coverts edged with purple in some, and greenish purple in others; flanks slate-colour; abdomen tinged with salmon-buff; under tail-coverts light slate-colour: bill two-thirds from the base beautiful pink-red, covered with a mealy substance; tip of the bill yellowish white, tinged with lilac; irides large and of a rich yellowish hazel in some specimens, reddish orange in others; naked skin of

* As there is no reliable evidence that this bird is found in Norfolk Island, the name *norfolciensis* cannot stand.

the orbits nearly pink-red; feet buff, with the scales pink-red and nail white" (*Gould*). Total length about 16 inches, wing 9·3, tail 6, bill 0·8, tarsus 0·95.

Female (?). Upper part of the head, the neck, breast, and abdomen pale brown-buff; throat and cheeks whitish; feathers of the crown, nape, sides of the neck, crop-region, and rest of underparts with metallic-purple tinge on the edges; remainder of the upper parts slate-colour, the edges of the feathers of the back, rump, and wing-coverts metallic green, with purple reflections; quills, tail, under wing-coverts, upper and under tail-coverts slate-black: bill apparently yellow; feet pale. Total length about 15·5 inches, wing 9·5, tail 6, bill 0·75, tarsus 0·96.

Young. Differs from the supposed female in being paler below, and in having the under tail-coverts pale brown, with the shaft of the feathers white.

There is some uncertainty as to whether the birds described as female and young really belong to this species; but this cannot be settled without a larger series.

Hab. Eastern Australia, from Rockingham Bay to Clarence River district, and the interior as far as Point Pearce.

a.	Ad. sk.	New South Wales (*Cockerell and Thorpe*).	Salvin-Godman Coll.
b.	Ad. sk.	Queensland.	Tweeddale Coll.
c.	Ad. sk.		Linnean Society[P.]. (Type of species.)
d.	Ad. sk.	Australia.	Lady Carrington [P.].
e.	Ad. sk.	Australia.	A. Cunningham, Esq. [P.].
f.	Ad. sk.	Australia.	Gould Coll.
g.	Ad. sk.		Purchased.
h.	♂ ? ad. sk.		Manchester Museum [P.].
i.	Imm. sk.	Rockingham Bay.	Gould Coll.

55. Columba polleni.

Columba pollenii, *Schleg. N. T. D.* iii. p. 87 (1866); *id. P. Z. S.* 1866, p. 424; *Schleg. & Poll. Rech. Faun. Madag.* p. 112, pl. 37 (1868); *Poll. Relat. Voy.* p. 132; *Gieb. Thes. Orn.* i. p. 149 (1872); *Hartl. Vög. Madag.* p. 267 (1877); *E. Newt. P. Z. S.* 1877, pp. 300, 301 (Anjuan); *Shell. P. Z. S.* 1879, p. 678 (Anjuan); *Milne-Ed. & Oust. Nouv. Arch. du Mus.* (2) x. p. 273 (Grande Comore) (1888).

Trocaza polleni, *G. R. Gr. Hand-list*, ii. p. 233, n. 9255 (1870).

Stictœnas polleni, *Schleg. Mus. P.-B.* Columbæ, p. 72 (1873).

Palumbus polleni, *Shell. Ibis*, 1883, p. 282.

Adult. Nearly uniform brown, with a slight olive gloss on the upper parts; a collar at the back and sides of the neck of lanceolate feathers, with paler ashy brown ends, edged on the outer webs with whitish; quills with narrow pale edges: "iris

pale brown; bill yellow, shaded towards the base with dusky olive; legs olive, shaded yellow" (*fide Shelley*). Total length about 14 inches, wing 8·8, tail 6·3, bill 0·78, tarsus 1·1.

Some specimens have the feathers of the underparts very slightly edged with rufous, and occasionally the feathers of the breast have a faint buff spot at the tip of the inner web, reminding one to a certain extent of the spotted plumage of *C. arquatrix*.

Hab. Comoro Islands—Great Comoro, Mayotte, and Anjuan.

a. Imm. sk.	Gt. Comoro.	Purchased.
b, *c*. Ad. et imm. sk.	Anjuan Is. (*Kirk*).	Shelley Coll.
d. Ad. sk.	Anjuan Is. (*Bewsher*).	Salvin-Godman Coll.

56. Columba nigrirostris *.

Columba nigrirostris, *Sclat. P. Z. S.* 1859, p. 390 (Oaxaca, Mexico); *Sclat. & Salv. P. Z. S.* 1864, p. 370; *Salv. Ibis*, 1865, p. 195 (Guatemala), 1866, p. 206, 1867, p. 280 (Mosquitia); *id. P. Z. S.*

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* COLUMBA PLUMBEA *and its Allies.*

Besides *Columba plumbea*, Vieill., from Brazil, five other allied birds have been described as distinct, viz.:—

1st. *C. nigrirostris*, Sclat., from Oaxaca, Mexico, and Central America as far as Panama;

2nd. *C. subvinacea*, Lawr., from Costa Rica to Ecuador;

3rd. *C. vinacea*, Temm., from Cayenne;

4th. *C. purpureotincta*, Ridgw., from British Guiana; and

5th. *C. plumbea*, subsp. *bogotensis*, Berl. & Leverk., from Bogota.

The first two have each a well-defined range and can be easily recognized—the first by its thickish bill and rufous tinge on inner webs of the quills, and the second, which also has the rufous tinge on the inner webs of the quills, by the brown-cinnamon colour of the back and wings. As to *C. purpureotincta*, Ridgw., from British Guiana, of which there is a good series in the British Museum, there is not the least doubt that it is the same as *C. vinacea*, Temm., from Cayenne, of which I have seen the type in the Museum of Paris. In the British Museum there are several specimens from Bogota, which I suppose belong to *C. plumbea*, var. *bogotensis*, Berl. & Leverk., but I have failed to discover how they can be distinguished from those from Brazil, Ecuador, Upper Amazons, and other localities.

Now comes the question as to whether *C. plumbea* and *C. vinacea* are really distinct. I may mention that Pelzeln, from an inspection of a number of specimens, was inclined to consider *C. vinacea* simply as a variety of *C. plumbea*, and that Graf von Berlepsch (J. f. O. 1874, p. 242) seems to be rather uncertain on this point. Mr. Salvin and myself, who have looked very carefully into the subject, have been unable, after examining about thirty specimens from Brazil, Guiana, Upper Amazons, Ecuador, and Bolivia, to find that they belong to more than one species, extremely variable in size, in the more or less bright colouring, in the rufous tinge on the inner webs of the quills being often absent, and even in the reddish spots on the feathers of the hind neck, which while very distinct in some specimens, especially females, are in others evanescent. It is worth while noticing that traces of the same spots are also to be found in some specimens of *C. subvinacea*, while in the majority they are altogether wanting. I do not pretend that my theory is correct; I merely wish to say that, with the materials at my command, I have been unable to draw the line between the different races or species admitted. I also wish to point out that Temminck's name *C. vinacea* cannot stand, there being already a *C. vinacea*, Gm., and that the substitute name *C. bicolor*, Vieill. (nec Scop.), fails on the same ground.

1870, p. 217 (Veragua); *Gieb. Thes. Orn.* i. p. 748 (1872); *Zeledon, Ann. Mus. Nac. Costa Rica*, 1887, p. 127, n. 580 (Costa Rica); *Ridgw. Pr. U.S. Nat. Mus.* x. p. 594 (1887).

Columba —— ?, *Salv. & Sclat. Ibis*, 1860, p. 402 (Guatemala); *Salv. Ibis*, 1866, p. 206 (=nigrirostris, *Sclat.*).

Chlorœnas nigrirostris, *Rchnb. Tauben*, ii. p. 171 (1862); *Lawr. Ann. Lyc. New York*, ix. p. 135 (1868) (Costa Rica); *Frantz. J. f. O.* 1869, p. 371; *G. R. Gr. Hand-list*, ii. p. 235, n. 9277 (1870); *Schleg. Mus. P.-B.* Columbæ, p. 78 (1873); *Salv. Ibis*, 1874, p. 455; *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 277 (1890).

Chlorœnas vinacea, *Lawr.* (*nec Temm.*) *Ann. Lyc. N. York*, vii. p. 333 (1866).

Adult male. Head, neck, breast, and rest of the underparts vinous, paler on the latter, and glossed with amethystine, especially on the head and hind neck; back, rump, upper tail-coverts, wings, and tail brown, with a slight amethystine gloss on the upper back and scapulars, the other parts glossed with bronze-olive; abdomen and under tail-coverts greyish vinous; under wing-coverts vinous; inner webs of the quills below tinged with rufous; tail below paler than above, and with a reddish tinge and glossy appearance: bill black; feet coral-red. Length about 11 inches, wing 6·5, tail 4·6, bill 0·5, tarsus 0·75.

Female. Similar to the male, only somewhat smaller.

There is some individual variation as regards the underparts, which in some specimens are brighter vinous than in others.

The thickish bill and the rufous tinge on the inner webs of the primaries below are the most distinguishing points of this species.

Hab. Southern Mexico and Central America as far as Panama.

a. ♂ ad. sk.	S. Mexico, April (*Boucard*).	Salvin-Godman Coll.
b, c. ♂ ad. et ad. sk.	Choctum, Vera Paz, Guatemala, Feb. (*O. S. & F. D. G.*).	Salvin-Godman Coll.
d. Ad. sk.	Vicinity of Belize, Brit. Honduras (*Blancaneaux*).	Salvin-Godman Coll.
e. Ad. sk.	Turrialba, Costa Rica (*Arcé*).	Salvin-Godman Coll.
f, g. ♂ ♀ ad. sk.	Bugaba, Chiriqui (*Arcé*).	Salvin-Godman Coll.
h, i. ♀ ad. et ad. sk.	Lion Hill Station, Isthmus of Panama (*McLeannan*).	Salvin-Godman Coll.

57. Columba plumbea.

? Columba cayennensis, *Bonn. Tabl. Enc. Méth.* i. p. 234, n. 8 (1790) (*ex Hollandre, Abrégé d'Hist. Nat.* ii. p. 214) (Cayenne).

Columba vinacea, *Temm. & Knip* (*nec Gm.*), *Pig.* i., fam. seconde, p. 87, pl. 41 (1808–11) (Guiana) (type examined); *Temm. Pig. et Gallin.* i. pp. 303, 477 (1813); *Steph. Gen. Zool.* xi. p. 84 (1819); *Desm. Dict. Sc. Nat.* xl. p. 345 (1826); *Wagl. Syst. Av.* Columba, sp. 78 (1827); *Cuv. Règne An.* 2nd ed. i. p. 491 (1829); *Less. Tr. d'Orn.* p. 473 (1831); *Less. Compl. de Buff., Ois.* viii. p. 58 (1837); *id. op. cit.* 2nd ed. p. 285 (1838); *Sclat. P. Z. S.* 1860, p. 289 (Ecuador); *Sclat. & Salv. P. Z. S.* 1866, p. 198 (Ucayali), 1867, p. 590 (Capim River), 1869, p. 598; *Gieb. Thes. Orn.* i. p. 752

(1872); *Garrod, P. Z. S.* 1873, pp. 468, 639; *Sclat. & Salv. P. Z. S.* 1873, p. 306; *iid. Nomencl. Av. Neotr.* p. 132 (1873); *iid. P. Z. S.* 1879, p. 543 (Remedios); ? *Tacz. P. Z. S.* 1882, p. 48; *Sclat. List Vert. An.* 8th ed. p. 449 (1883); *Tacz. Orn. Pér.* iii. p. 235, Tables, p. 101 (1886); *Salv. Ibis*, 1886, p. 173 (British Guiana); *Tristr. Cat. Coll. B.* p. 38 (1889).

Columba bicolor, *Vieill.* (*nec Scop.*) *N. D.* xxvi. p. 345 (1818); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 33 (1856).

Columba plumbea, *Vieill. N. D.* xxvi. p. 358 (1818) (Brazil) (type examined); *id. Enc. Méth.* i. p. 378 (1823); *Desm. Dict. Sc. Nat.* xl. p. 374 (1826); *G. R. Gr. Gen. B.* ii. p. 470, n. 15 (1844); *Rchnb. Syn. Av.* f. 1262 (1847); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 33 (1856); *Reinh. Vidensk. Medd. Nat. For.* 1870, p. 58, sp. 73; *Gieb. Thes. Orn.* i. p. 749 (1872); *Sclat. & Salv. Nomencl. Av. Neotr.* p. 132 (1873); *iid. P. Z. S.* 1879, p. 639 (Bolivia); *Salv. Cat. B. Strickl. Coll.* p. 543 (1882); *Berl. & Jher. Zeitschr. d. ges. Orn.* 1885, p. 176 (Rio Grande do Sul); *Tacz. Orn. Per.* iii. p. 234, Tables, p. 101 (1886); *Salv. Ibis*, 1886, p. 173 (British Guiana); ? *Berl. J. f. O.* 1887, p. 133; *Pelz. & Lor. Ann. Naturh. Hofmus.* iii. p. 48 (1888); *Tristr. Cat. Coll. B.* p. 38 (1889); *Hart. Kat. Vogelsamml.* p. 186 (1891).

Columba locutrix, *Wied, Reise nach Bras.* ii. pp. 118, 213 (1821); *Temm. Pl. Col.* 166 (livr. 28, 1823); *Steph. Gen. Zool.* xiv. p. 283 (1826); *Desm. Dict. Sc. Nat.* xl. p. 325 (1826); *Wagl. Syst. Av.* Columba, sp. 62 (1827); *Cuv. Règn. An.* 2nd ed. i. p. 491 (1829); *Less. Tr. d'Orn.* p. 470 (1831); *Wied, Beitr.* iv. p. 455 (1832); *Knip & Prév. Pig.* ii. pl. 44 (1838–43); *Allen, Bull. Am. Mus. N. H.* ii. p. 270 (1889); *Riker & Chapm. Auk*, viii. p. 162 (Santarem) (1891).

Columba infuscata, *Licht. Cat. Doubl. Berl. Mus.* p. 66 (1823); ***Wagl. Syst. Av.* Columba, sp. 65 (1827); *id. Isis*, 1829, p. 744** (=locutrix, ***Wied***); *G. R. Gr. Gen. B.* ii. p. 470, n. 32 (1844); *Tsch. Faun. Per., Aves*, pp. 45, 275 (1844–46); ? *Rchnb. Syn. Av.* f. 1271 (pess.) (1847).

Macropygia infuscata, *Sw. Class. B.* ii. p. 349 (1837).

Peristera locutrix, *Hartl. Syst. Verz.* p. 99 (1844).

Peristera vinacea, *G. R. Gr. Gen. B.* ii. p. 476, n. 12 (1845); *Rchnb. Syn. Av. Novit.* Columbariæ, f. 3384 (*errore* 3389) (1851).

Tympanistria vinacea, *Rchnb. Av. Syst. Nat.* p. xxv (1852).

Leptoptila plumbea, *Rchnb. Av. Syst. Nat.* p. xxv, f. 1262 (1852).

Janthœnas locutrix, *Rchnb. Av. Syst. Nat.* p. xxv, f. 1271 (1852).

Chlorœnas plumbea, *Bp. Consp. Av.* ii, p. 53 (1854); *id. Compt. Rend.* xxxix. p. 1109 (1853), xl. p. 216, n. 150 (1855); *id. Coup d'œil Ordre Pig.* pp. 25, 56, n. 150 (1855); *Rchnb. Tauben*, i. p. 62, t. 224. f. 1262 (1862), ii. p. 172 (1862); *Pelz. Orn. Bras.* pp. 274, 450, liv (1868); *G. R. Gr. Hand-list*, ii. p. 235, n. 9275 (1870); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 14 (1873); *Tacz. P. Z. S.* 1874, p. 555 (Central Peru); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 277 (Rio Grande) (1890).

Chlorœnas vinacea, *Bp. Consp. Av.* ii. p. 53 (1854); *id. Compt. Rend.* xxxix. p. 1109 (1854), xl. p. 218, n. 151 (1855); *id. Coup d'œil Ordre Pig.* pp. 25, 56, n. 151 (1855); *Burm. Syst. Ueb. Th. Bras.* iii. p. 292 (1856); *Rchnb. Tauben*, i. p. 63, t. 257 *b.* f. 3384 (1862), ii. p. 172 (1862); *G. R. Gr. Hand-list*, ii. p. 235, n. 9276 (1870); *Schleg. Mus. P.-B.* Columbæ, p. 78 (type!) (1873); *Berl. J. f. O.* 1874, p. 242.

Chlorœnas bicolor, *Sclat. P. Z. S.* 1856, p. 30.

Chlorœnas infuscata, *Burm. Syst. Ueb. Thier. Bras.* iii. p. 292 (1856) (Neu-Fribourg).
Chlorœnas locutrix, *Rchnb. Tauben*, i. p. 63 (1862), ii. p. 172, t. ii. f. 21 (1862); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 277 (1890).
? Columba plumbea, var., *Pelz. Orn. Bras.* pp. 275, 450 (1868).
Lepidœnas plumbea, *Schleg. Mus. P.-B.* Columbæ, p. 70 (1873).
Columba purpureotincta, *Ridgw. Pr. U.S. Nat. Mus.* 1887, p. 594, note (Demerara, British Guiana).
Chlorœnas plumbea, subsp. bogotensis, *Berl. & Leverk. Ornis*, 1890, p. 32.

Adult male. Head, neck, and underparts purplish vinous; back, rump, upper tail-coverts and upper wing-coverts dark sepia-brown with an olive lustre, more or less with purple reflections in some specimens; quills dark olive sepia-brown, inner webs in some specimens tinged with rufous brown; under wing-coverts dark greyish vinous; tail dark olive-brown like the back, more or less with a purple lustre: "iris dark vinous red; feet dark red, with a violet tinge; bill black" (*Wied*). Total length 13·5–11 inches, wing 7–6, tail 5·5–4·5, bill 0·65–0·58, tarsus 0·95–0·8.

Adult female. Like the male, but duller and less vinous underneath, and often with reddish spots on the nape.

Young. Has rufous narrow edges to the feathers of the head and underparts and to the wing-coverts.

Hab. Cayenne, British Guiana, Columbia, Ecuador, N. and E. Peru, Bolivia, and Brazil.

Three specimens from E. Peru, mentioned below, absolutely alike, have a distinct cinnamon tinge on the upper parts, and perhaps belong to a definable race.

a. Ad. st.	Brazil [*Massena Coll.*].	E. Wilson, Esq. [P.].
b. ♂ ad. sk.	Brazil.	Salvin-Godman Coll.
c. Ad. sk.	Brazil.	Gould Coll.
d. Ad. sk.	Brazil.	Baron Laugier's Coll.
e. Ad. sk.		Zoological Society's Coll.
f, g. Ad. sk.	Mapiri, Bolivia (*C. Buckley*).	Salvin-Godman Coll.
h, i. Ad. sk.	Peru (*Tschudi*).	Salvin-Godman Coll.
k, l. ♂ ad. et ad. sk.	Cosnipata, E. Peru, May, Oct. (*H. Whitely*).	Salvin-Godman Coll.
m. ♂ ad. sk.	Santa Cruz, Peruvian Amazons, July (*E. Bartlett*).	Salvin-Godman Coll.
n, o. Ad. sk.	Sarayacu, Ecuador (*Buckley*).	Salvin-Godman Coll.
p. Ad. sk.	Vicinity of Bogota, New Granada (*Bowman*).	Salvin-Godman Coll.
q. Ad. sk.	Vicinity of Bogota, New Granada (*Trübner*).	Salvin-Godman Coll.
r. Ad. sk.	Anolaima, W. slope of E. Cordillera, Colombia (*T. H. Wheeler*).	Salvin-Godman Coll.
s. Ad. sk.	U.S. of Colombia.	Salvin-Godman Coll.
t. Ad. sk.	New Granada.	Purchased.
u. ♂ ad. sk.	Remedios, Antioquia (*T. K. Salmon*).	Salvin-Godman Coll.

v, *w*. ♂ ad. et ad. sk.	Rio Capim, Para, Lower Amazons (*Wallace*).	Salvin-Godman Coll.
x–*a'*. ♂ ♀ ad. sk.	Carimang River, Jan., Feb., May, Dec. (*Whitely*).	Salvin-Godman Coll.
b', *c'*, *d'*. ♂ ad. et ad. sk.	Camacusa, Brit. Guiana, April, May (*Whitely*).	Salvin-Godman Coll.
e', *f'*. ♂ ad. sk.	Roraima, Brit. Guiana, Jan., April (*Whitely*).	Salvin-Godman Coll.
g'–*k'*. ♂ ♀ ad. sk.	Bartica Grove, Brit. Guiana, Dec., Jan. (*Whitely*).	Salvin-Godman Coll.
l'. ♂ ad.	Ourumle, Brit. Guiana, Nov. (*Whitely*).	Salvin-Godman Coll.

58. Columba subvinacea.

Chlorœnas rufina, *Sclat.* (*nec Temm.*) *P. Z. S.* 1859, p. 147 (Pallatanga), 1860, p. 97 (Nanegal).

Chlorœnas subvinacea, *Lawr. Ann. Lyc. N. Y.* ix. p. 135 (1868) (Dota, Costa Rica); *Salv. Ibis*, 1869, p. 317; *Frantz. J. f. O.* 1869, p. 371; *G. R. Gr. Hand-list*, ii. p. 235, n. 9278 (1870); *Gieb. Thes. Orn.* i. p. 660 (1872); *Rowl. Orn. Misc.* iii. p. 75, pl. xci. (pt. xii., 1878).

Columba subvinacea, *Salv. P. Z. S.* 1870, p. 217 (Veragua); *Sclat. & Salv. Nomencl. Av. Neotrop.* p. 132, n. 16 (1873); *Boucard, P. Z. S.* 1878, p. 43 (Costa Rica); *Sclat. & Salv. P. Z. S.* 1879, p. 543 (Remedios); ? *Berl. & Tacz. P. Z. S.* 1883, p. 574 (var., W. Equador); *Tacz. & Berl. P. Z. S.* 1885, p. 123; *Zeledon, Ann. Mus. Nac. Costa Rica*, 1887, p. 127, n. 581 (Costa Rica).

Chlorœnas vinacea, *Gieb. Thes. Orn.* i. p. 752 (part.) (1872); ? *Tacz. P. Z. S.* 1882, p. 48 (Huambo, N.E. Peru).

Adult male. Head, neck, and under plumage light purplish vinaceous, the throat paler, the under tail-coverts darker; back, rump, and upper wing-coverts brownish cinnamon; quills dark brown, with narrow pale outer edges, and with the under surface of the inner webs dull pale cinnamon to near their ends; under wing-coverts purplish vinaceous, like the under plumage, but with a cinnamon tinge; tail and upper tail-coverts fine chocolate-brown: bill black; feet yellow in dry skins. Total length about 12·75 inches, wing 6·5, tail 5, bill 0·52, tarsus 0·9.

Female. Similar to the male, but, according to Mr. Lawrence, is a little smaller, and differs in being less vinaceous on the lower part of the hind neck and abdomen, where it is brownish cinnamon.

Hab. Costa Rica, Veragua, Columbia, and Ecuador.

Some specimens show traces of light spots on the lower hind neck. A specimen from Remedios is darker than the others, and another from Balzar Mountains, W. Ecuador, is very small—wing 5 inches!

a, *b*. ♂ ♀ ad. sk.	Barranca, Costa Rica, Feb. (*J. Carmiol*).	Salvin-Godman Coll.
c. ♀ ad. sk.	San José, Costa Rica (*J. Carmiol*).	Salvin-Godman Coll.
d. Ad. sk.	Volcan de Chiriqui (*Arcé*).	Salvin-Godman Coll.

e. ♀ ad. sk.	Calovevora, Veragua (*Arcé*).	Salvin-Godman Coll.
f. ♂ ad. sk.	Remedios, U.S. of Colombia (*T. K. Salmon*).	Salvin-Godman Coll.
g. Ad. sk.	New Granada.	Purchased.
h. Ad. sk.	Caraccas, Venezuela.	Dyson Coll.
i. Ad. sk.	Pallatanga, Ecuador (*Fraser*).	Eyton Coll.
k. Ad. sk.	Monji, Ecuador (*Buckley*).	Salvin-Godman Coll.
l. Ad. sk.	Balzar Mountains, Ecuador (*Illingworth*).	Salvin-Godman Coll.
m. Ad. sk.	Quito, Ecuador (*Higgins*).	Salvin-Godman Coll.
n. Ad. sk.	Ecuador.	Salvin-Godman Coll.

3. NESŒNAS.

	Type.
Trocaza, *Shell.* (*nec. Bp.*) *Ibis*, 1883, p. 281	N. mayeri.
Nesœnas, *Salvad. MS.*	N. mayeri.

Range. Confined to Mauritius.

1. Nesœnas mayeri.

Columba mayeri, *Marchal, Mus. Marchal*; *Prév. & Knip, Pig.* ii. pl. 60 (1843).

Columba meyeri, *Schleg. & Pollen, Rech. Faun. Madag.* p. 111, pl. 36 (1868); *Gieb. Thes. Orn.* i. p. 747 (1872); *Hartl. Vög. Madag.* p. 265 (1877).

Carpophaga meyeri, *G. R. Gr. fide Bp. Consp. Av.* ii. p. 45 (1854).

Peristera mayeri, *G. R. Gr. Gen. B.* iii. App. p. 24 (1849).

Trocaza meyeri, *Bp. Consp. Av.* ii. p. 45 (1854); *id. Compt. Rend.* xxxix. p. 1104 (1854), xl. p. 218, n. 128 (1855); *id. Coup d'œil Ordre Pig.* pp. 20, 56, n. 128 (1855); *Hartl. Orn. Beitr. Faun. Madag.* p. 66 (1861); *Rchnb. Tauben*, i. p. 54 (1862), ii. p. 168, *Novit. Suppl.* t. ii. f. 19 (1862); *G. R. Gr. Hand-list*, ii. p. 233, n. 9251 (1870); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 12 (1873); *Shell. Ibis*, 1883, p. 281.

Trocaza meijeri, *Poll. N. T. D.* i. p. 318 (1863).

Adult. Head, neck, mantle, and underparts pale pink, fading into whitish towards the forehead, cheeks, and upper throat, and passing into rather darker pink on the mantle; remainder of the upper back and the entire wings brown, with a slight shade of olive and rufous; lower back and rump greyish, the latter mottled with chestnut; upper tail-coverts and tail cinnamon, the outer tail-feathers fade into buff on the outer webs and towards the tips; under tail-coverts pink, like the mantle; under surface of the wings ashy brown, slightly paler on the axillaries and under wing-coverts: "iris yellow; bill yellow, shaded with red towards the base; legs red" (*fide Shelley*). Total length about 15·5 inches, wing 8·5, tail 6·5, bill 0·86, tarsus 1·3.

Some specimens have a few brown feathers round the base of the bill and on the chin.

Hab. Mauritius.

a. Ad. sk.	Mauritius (*Van Dam*).	Shelley Coll.
b. Ad. sk.	Mauritius.	Sharpe Coll.
c. ♂ ad. sk.	Mauritius.	Purchased.

4. TURTURŒNA.

Type.

Turturæna, *Bp. Consp. Av.* ii. p. 45 (1854) ..... T. delegorguei.
Turturœna, *Hartl. Orn. W.-Afr.* p. 194 (1857).
Peleicœnas, *Rchnb. Tauben*, i. p. 54 (1862) (=Turturœna).
Trizusa, *Heine, Nomencl. Mus. Hein. Orn.* p. 276 (1890) (=Turturœna).

Range. From Liberia on the west and Mount Elgon on the east to Natal.

Key to the Species.

a. A crescentic silvery-white band at the base of the hind neck of the males.
  a'. Crown, occiput, back, and sides of the neck glossed with metallic amethystine colour; tail slate-black, with a narrow apical grey band; female without the silvery-white band at the base of the hind neck..... *delegorguei*, p. 328.
  b'. Crown, occiput, back, and sides of the neck glossed with metallic green ..... *sharpei*, p. 329.
b. No crescentic silvery-white band at the base of the neck of the males; base of the hind neck coppery amethystine.
  c'. Tail uniform slate-black ..... *incerta* ♀, p. 330.
  d'. Tail more or less tinged with rufous.
    a''. Tail with a broad yellow-buff apical band; ***male* with the head and neck dark grey,** breast and abdomen deep vinous; *female* more or less rufous on the posterior part of the head and neck; underparts brown-grey ..... *iriditorques*, p. 330.
    b''. General plumage grey, paler below; upper part of the head grey with amethystine reflections; under tail-coverts ochreous, tail dark grey above and with an ochreous tinge on the inner webs of the feathers ..... *malherbei*, p. 331.

1. Turturœna delegorguei. (Plate IX. figs. 1, 2.)

Columba delegorguei, *Delegorgue, Voy. Afr. Austr.* ii. p. 615 (Port Natal) (1847); *G. R. Gr. Gen. B.* iii. App. p. 23 (1849); *Verr. Rev. et Mag. de Zool.* 1851, p. 514; *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 30 (1856); *Gurn. Ibis*, 1864, p. 354 (Natal); *Layard, B. S. Afr.* p. 257 (1867); *Gieb. Thes. Orn.* i. p. 742 (1872); *Tristr. Cat. Coll. B.* p. 37 (1889).
Columba johannæ, *Verr. MS. Mus. Philad.* 1851, *fide Bp. Consp. Av.* ii. p. 45 (1854); *id. Compt. Rend.* xxxix. p. 1104 (1854); *id. Coup d'œil Ordre Pig.* p. 21 (1855).
Turtur delegorguii, *G. R. Gr. fide Bp. Consp. Av.* ii. p. 46 (1854).
Columba lunigera, *G. R. Gr. MS. in Mus. Brit. fide Bp. Consp. Av.*

ii. p. 45 (1854); *id. Compt. Rend.* xxxix. p. 1104 (1854); *id. Coup d'œil Ordre Pig.* p. 21 (1855).

Turturœna delegorguii, *Bp. Consp. Av.* ii. p. 45 (1854); *id. Compt. Rend.* xxxix. p. 1104 (1854), xl. p. 218, n. 129 (1855); *id. Coup d'œil Ordre Pig.* pp. 21, 56, n. 129 (1855); *Sharpe, in Layard's B. S. Afr.* p. 563 (1884).

Peleiœnas delegorguei, *Rchnb. Tauben*, i. p. 54 (1862).

Turturœna delegorguei, *G. R. Gr. Hand-list*, ii. p. 234, n. 9253 (1870); *Shell. Ibis*, 1883, p. 289.

Adult male. Head and neck slate-colour, slightly paler towards the forehead and chin; back of the head and back and sides of the neck very strongly glossed with metallic amethyst-lilac, with reflections of green in certain lights; across the upper mantle a broad crescentic white band; rest of the mantle and wings dark chestnut, the former with purple and green reflections; lower back, rump, and upper tail-coverts slate-black; lower part of the fore neck, breast, and upper part of the abdomen deep vinous, changing into dark slate-colour on the sides, vent, and under tail-coverts; the fore neck and crop-region with amethyst-lilac gloss; the lower breast and abdomen show very narrow lines or dottings; quills and primary-coverts slate-black, the former with narrow brown edges on the outer webs; under surface of the wings slate-colour; tail slate-black, with a narrow apical grey band, better defined below: "iris dark brown; bill ash; bare skin round the eye and also the tarsi and feet dark pink" (*Ayres*). Total length 11·5 inches, wing 7·3, tail 4·6, bill 0·7, tarsus 0·9.

Female. Forehead and underparts grey, the latter with a slight brown tinge, produced by very fine brown freckles; crown, occiput, and nape rufous cinnamon with a golden-green gloss; lower part of the hind neck coppery, with green reflections; remainder of the upper parts slate-grey; the feathers of the back and the upper wing-coverts have obsolete brown edges, wanting in fully adult birds; under wing-coverts slate-black; tail as in the male: "iris dull red; end portion of the bill yellow, basal portion dark purple; legs flesh-colour" (*T. L. Ayres*). Total length 11 inches, wing 6·3, tail 4·5, bill 0·62, tarsus 0·85.

Hab. Natal, S.E. Africa.

a. ♂ ad. sk.	Port Natal, S. Africa.	Purchased. (Type of *C. lunigera*, Gr.)
b. ♀ ad. sk.	Durban (*T. L. Ayres*).	Shelley Coll.

2. Turturœna sharpei. (Plate IX. fig. 3.)

Head and neck. Similar to the head and neck of *T. delegorguei*, but the crown, occiput, back, and sides of the neck glossed with metallic green, instead of amethyst-lilac; forehead, cheeks, and throat dove- or lead-grey; below the nape a broad silvery-white band, formed by the tips of the feathers; each feather before the white tip has a metallic-green narrow band; lower fore neck

vinous grey with green gloss: bill in the dry skin bluish, with the tip lighter. Length of the culmen of the bill 0·68 inch.

Hab. Mount Elgon (*Jackson*).

a. Ad. Head & neck. Mount Elgon. F. J. Jackson, Esq. [P.] (Type of species.)

3. Turturœna incerta.

Female. Similar to the female of *T. delegorguei*, but smaller, much more rufous on the head, neck, and underparts, and with the tail uniform slate-black, without the narrow apical grey band.

Head, neck, and underparts rufous brown, paler greyish on the forehead and throat; the underparts very minutely vermiculated; vent and under tail-coverts cinnamon; the hind part of the head and occiput with coppery lustre; lower part of the hind neck metallic-coppery amethystine; rest of the upper parts slate-grey, with green lustre on the interscapular region; wings underneath slate-grey: bill in dry skin pale horny; feet pale yellowish. Total length about 9·2 inches, wing 5·7, tail 3·5, bill 0·65, tarsus 0·7.

The type specimen is a bird which was alive in the Zoological Society's Gardens; it has a great resemblance to the female of *T. iriditorques*, but it differs in having the tail entirely slate-black, without any rufous-brown tinge, and with no yellowish-buff band at the tip of the lateral feathers.

Hab. Unknown.

a. ♀ ad. sk. Zool. Soc. Gardens. (Type of species.)

4. Turturœna iriditorques.

Turturæna malherbii, *Bp.* (*nec Verr.*) *Consp.* ii. p. 46 (1854) *; *id. Compt. Rend.* xxxix. p. 104 (part.) (1854), xl. p. 218, n. 130 (1855); *id. Coup d'œil Ordre Pig.* pp. 20, 21, 36, n. 130 (1855).

Columba iriditorques, *Cass. Pr. Ac. Nat. Sc. Philad.* 1856, p. 254 (St. Paul's River, Moonda River); *Hartl. Orn. W.-Afr.* p. 267 (1857); *Cass. Pr. Ac. Nat. Sc. Philad.* 1859, p. 143 (Camma); *Rchnb. Tauben*, ii. p. 170 (1862); *Schleg. Mus. P.-B.* Columbæ, p. 69 (1873); *id. Not. Leyd. Mus.* iii. p. 57 (Liberia) (1881); *Büttik. Not. Leyd. Mus.* vii. p. 227 (1885), viii. p. 264 (1886), x. p. 97 (1888), xi. p. 135 (1889); *id. Reisebild. aus Liber.* pp. 423, 476 (1890).

Columba chalcauchia, *G. R. Gr. MSS.*; *id. List B. Brit. Mus.* Columbæ, p. 30 (Gaboon) (1856).

Turturæna chalcauchia, *Bp. Compt. Rend.* xliii. p. 837 (1856).

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* I have examined, in the Paris Museum, the bird described as *T. malherbii*, adult male, by Bonaparte, and it undoubtedly belongs to *T. iriditorques*, which at the time was not yet described; Bonaparte's description is inaccurate.

Columba malherbii, *Hartl.* (*nec Verr.*) *Syst. Orn. W.-Afr.* p. 199 (ad.) (1857); *Cass. Pr. Ac. Nat. Sc. Philad.* 1859, p. 143 (Gamma River); *Hartl. J. f. O.* 1861, p. 266; *Gieb. Thes. Orn.* i. p. 747 (part.) (1872).
Columba chalcauchenia (*G. R. Gr.*), *Hartl. Syst. Orn. W.-Afr.* p. 194 (in syn. sp. 568) (1857).
Turturœna chalcauchia, *G. R. Gr. Hand-list*, ii. p. 234, n. 9255 (1870).
Turturœna iriditorques, *G. R. Gr. Hand-list*, ii. p. 234, n. 9256 (1870); *Shell. Ibis*, 1883, p. 291.
Columba malherbei, part., *Gieb. Thes. Orn.* i. p. 747 (1872).
Trixusa iriditorques, *Heine & Rchnw. Nomencl. Mus. Hein. Orn.* p. 276 (1890).
Turturœna büttikoferi, *Rchnw. Allg. deutsche Orn. Ges. zu Berlin, Bericht* no. viii. p. 4 (1891); *id. J. f. O.* 1891, pp. 373, 437 (♀).

Adult male. Head and upper part of the neck lead-grey; hind part of the head and neck glossed with green, and with amethystine reflections; lower hind neck coppery, with amethystine reflections; rest of the upper parts slate-grey, with the feathers of the mantle edged with metallic green; lower throat, crop-region, breast, and abdomen vinous; under tail-coverts vinous cinnamon; under surface of the wings slate-grey; tail slate-grey, the two central feathers uniform, the lateral ones with a broad yellowish-buff band at the tip, and with the inner webs tinged with brown; tail below brown, rufous towards the base, and with a broad buff apical band: "iris pale rose-colour; bill blue at the base, with horny-yellow point; feet flesh-colour" (*Büttikofer*). Total length about 10 inches, wing 6·6, tail 4·2, bill 0·6, tarsus 0·8.

Female. Anterior part of the head greyish, posterior part and hind neck rufous, with green and amethyst reflections; lower hind neck coppery red with amethystine reflections; rest of the upper parts slate-grey; under surface brown-grey, with narrow vermiculations, on the crop-region an amethystine gloss; under tail-coverts cinnamon; wings and tail as in the male, the latter deeper rufous on the apical band and on the inner webs of the feathers *.

Hab. W. Africa, from Gaboon to Liberia.

a. ♂ ad. sk.	Gaboon.	Purchased. (Type of *C. chalcauchia*, G. R. Gr.)
b. ♀ ad. sk.	Gaboon.	Bouvier Coll.
c. ♀ ad. sk.	Abouri, Gold Coast (*H. T. Ussher*).	Shelley Coll.

5. Turturœna malherbei.

Columba malherbii, *Verr. Rev. et Mag. de Zool.* 1851, p. 514 (♀?) (Gaboon!); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 30 (1856); *Gieb. Thes. Orn.* i. p. 747 (part.) (1872).

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* Captain Shelley's description (*l. c.*) applies only to the female of this species.

Peleiœnas malherbii, *Rchnb. Tauben*, i. p. 54 (1862), ii. p. 168 (1862).
Peleœnas (*errore*) malherbii, *Hartl. J. f. O.* 1861, p. 266.
Columba ——?, *Keulem. N. T. D.* iii. p. 395 (1866) (Prince's Island).
Columba chlorophæa, *Hartl. P. Z. S.* 1866, p. 329 (Prince's Island) (type examined); *G. R. Gr. Hand-list*, ii. p. 232, n. 9240 (1870); *Shell. Ibis*, 1883, p. 273 (var. of *C. livia*!).
Turturœna, sp.?, *Bocage, Jorn. Ac. Lisb.* 1869, p. 144 (St. Thomas' Island); *id. J. f. O.* 1876, p. 315 (St. Thomé); *Sousa, Jorn. Ac. Lisb.* xii. p. 153 (1888).
Turturœna chlorophæa, *Bocage, l. c.* p. 338 (1869); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 12 (1873).
Turturœna malherbii, *G. R. Gr. Hand-list*, ii. p. 234, n. 9254 (1870); *Shell. Ibis*, 1883, p. 291 (syn. emend.); *Bocage, Jorn. Ac. Lisb.* xii. p. 81 (1887) (St. Thomé), pp. 213, 232 (1888).
Turtur chlorophæus, *Gieb. Thes. Orn.* iii. p. 726 (1877).
Turturœna iriditorques, part., *Shell. Ibis*, 1883, p. 291 (St. Thomas only).
Columba iriditorques, *Sousa* (*nec Cass.*), *Jorn. Lisb.* xii. pp. 153, 158 (St. Thomé) (1888).

The *adult male* is unknown to me; the one described as such by Bonaparte turns out to be a specimen of *T. iriditorques*.

Adult female. Upper parts, or back, wings, and tail, slate-black with metallic-green lustre; forehead, throat, and underparts lead-grey; crown, occiput, hind neck, and also the sides of the neck metallic green with amethyst reflections, also the cheeks and the crop-region with golden amethyst reflections; under tail-coverts ochreous rufous; quills and tail slate-colour, the latter with an ochreous tinge underneath, especially on the inner web of the feathers; under wing-coverts slate-colour: "iris pale grey, bill grey, legs red" (*Keulemans*). Total length about 11 inches, wing 7, tail 4·5, bill 0·7, tarsus 0·9.

The type of *C. chlorophæa* *, a female, is similar to the bird described above as adult female, but has the amethyst colour on the neck not so bright, and entirely absent on the cheeks.

Young (?). Similar to the adult female, but has a slight ochreous tinge on the grey of the underparts.

Hab. Prince Island and St. Thomas Island.

a. Ad. sk.	[Gaboon.]	Verreaux Coll. (Probable type of species.)
b. ♀ ad. sk.	St. Thomas (*F. Newton*).	Prof. Bocage [P.].

* I have to thank Dr. Hartlaub and the authorities of the Stettin Museum for the loan of this specimen.

Subfamily II. MACROPYGIINÆ.

Key to the Genera.

a. Bill moderate.	
a'. Tail not much graduated, the outer tail-feathers being much longer than half the tail; general colour slate	5. TURACŒNA, p. 333.
b'. Tail much graduated, the outer tail-feathers less than half the tail; general colour rufous, chestnut, or cinnamon	6. MACROPYGIA, p. 335.
b. Bill very thick and almost hooked at the tip; tail much graduated.	
c'. Head without crest	7. REINWARDTŒNAS, p. 365.
d'. Head with an occipital crest	8. CORYPHŒNAS, p. 368.

5. TURACŒNA.

	Type.
Turacœna, *Bp. Consp. Av.* ii. p. 58 (1854).....	T. menadensis.
Haplœnas, *Heine, Nomencl. Mus. Hein. Orn.* p. 278 (1890) (= Turacœna, *Bp.*).	

Range. Celebes and Timor.

Key to the Species.

a. Slate-black, with the face and throat white	*menadensis*, p. 333.
b. Uniform slate-colour, with no white on the face and throat.....	*modesta*, p. 334.

1. Turacœna menadensis.

Columba manadensis, *Quoy & Gaim. Voy. de l'Astrol.* i. p. 248, pl. 30 (Menado) (1830); *Less. Compl. de Buff., Ois.* viii. p. 73 (1837); *id. op. cit.* 2nd ed. p. 289 (1838); *Knip & Prév. Pig.* ii. pl. 46 (1838–43).

Macropygia manadensis, *G. R. Gr. Gen. B.* ii. p. 471, n. 8 (1844); *Rchnb. Syn. Av.* ff. 1403–4 (1847); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 40 (1856); *Schleg. Mus. P.-B.* Columbæ, p. 106 (1873); *Gieb. Thes. Orn.* ii. p. 518 (1875); *Rosenb. Malay. Archip.* p. 275 (1878); *Tristr. Cat. Coll. B.* p. 39 (1889).

Turacœna manadensis, *Bp. Consp. Av.* ii. p. 58 (1854); *id. Compt. Rend.* xxxix. p. 1112 (1854), xl. p. 219, n. 169 (1855); *id. Coup d'œil Ordre Pig.* pp. 28, 51, n. 169 (1855); *Rchnb. Tauben*, i. p. 89, t. 252. ff. 1403–4 (1862); *Wall. Ibis*, 1865, p. 390; *id. J. f. O.* 1866, p. 283; *G. R. Gr. Hand-list*, ii. p. 257, n. 9307 (1870); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 15 (1873); *Lenz, J. f. O.* 1877, p. 379; *Wardl. Rams. Ibis*, 1890, p. 243.

Turacœna menadensis, *Wall. P. Z. S.* 1862, p. 345 (Sula Is.); *Wald. Tr. Zool. Soc.* viii. p. 85 (1872); *Salvad. Ann. Mus. Civ. Gen.* vii.

p. 673 (1875); *Meyer, Ibis*, 1879, p. 137; *Guillem. P. Z. S.* 1885, p. 558; *Blas. Zeitschr. ges. Orn.* iii. p. 308 (1885), iv. pp. 137, 208 (1886).

Turtur manadensis, *Schleg. De Dierent.* p. 206 (1864).

Macropygia menadensis, *Brüggem. Abh. nat. Ver. Brem.* v. p. 87 (1876).

? Turacœna menadensis, var. major, *Blas. Zeitschr. ges. Orn.* iii. pp. 309, 310 (1885).

Haplœnas manadensis, *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 278 (1890).

Adult. Front part of the head, cheeks, and throat white; occiput, neck, and breast metallic golden green, base of the feathers slate-black; back, wings, tail, abdomen, and under tail-coverts slate-black, the feathers of the back and the wing-coverts with shining dark blue edges: "bill and feet black; orbits bare, red" (*Wallace*), "iris red" (*Platen*). Total length about 16 inches, wing 8, tail 7·4, bill 8·75, tarsus 0·92.

Female. Similar to the male, only somewhat smaller.

Young. The nape, instead of being green, has steel-blue and violet reflections; the feathers of the breast and abdomen have pale brown edgings.

Hab. Celebes, with the Togian and Sula Islands.

Specimens from the Sula Islands are smaller.

a. Ad. st.	Celebes (*Massena Coll.*).	E. Wilson, Esq. [P.].
b. Ad. sk.	Celebes (*Leyden Mus.*).	Salvin-Godman Coll.
c, d. Ad. sk.	Celebes (*Wallace*).	Seebohm Coll.
e. Ad. sk.	N. Celebes.	Wallace Coll.
f. Ad. sk.	Menado, N. Celebes (*Wallace*).	Gould Coll.
g, h. Ad. sk.	Menado, N. Celebes.	Hume Coll.
i, k. ♂ ad. et imm. sk.	Makassar.	Wallace Coll.
l. Ad. sk.	Makassar (*Wallace*).	Gould Coll.
m. ♂ ad. sk.	Makassar (*Wallace*).	Tweeddale Coll.
n, o. Ad. et imm. sk.	Sula Is.	Wallace Coll.
p, q. Ad. sk.	Sula Is. (*Wallace*).	Salvin-Godman Coll.
r. Ad. sk.	Sula Is. (*Wallace*).	Tweeddale Coll.
s. Skeleton.	Menado, N. Celebes.	Dr. A. B. Meyer [C.].

2. Turacœna modesta.

Columba modesta, *Temm. Pl. Col.* 552 (livr. 93, 1835) (Timor); *Less. Compl. de Buff., Ois.* viii. p. 72 (1837); *id. op. cit.* 2nd ed. p. 289 (1838); *Knip & Prév. Pig.* ii. pl. 31 (1838–43); *S. Müll. Verh. Land- en Volkenk.* p. 154 (1839–44).

Macropygia modesta, *G. R. Gr. Gen. B.* ii. p. 471, n. 6 (1844); *Rchnb. Syn. Av.* f. 1401 (1847); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 40 (1856); *Schleg. Mus. P.-B.* Columbæ, p. 107 (1873) (Timor and Wetter); *Gieb. Thes. Orn.* ii. p. 518 (1875).

Turacœna modesta, *Bp. Consp. Av.* ii. p. 59 (1854); *id. Compt. Rend.* xxxix. p. 1112 (1854), xl. p. 219, n. 170 (1855); *id. Coup d'œil Ordre Pig.* pp. 28, 57, n. 170 (1855); *Rchnb. Tauben*, i. p. 89,

t. 252. f. 1401 (1862); *Wall. P. Z. S.* 1863, p. 486; *id. Ibis*, 1865, p. 391; *id. J. f. O.* 1866, p. 283; *G. R. Gr. Hand-list*, ii. p. 237, n. 9308 (1870); *Wardl. Rams. Ibis*, 1890, p. 246; *Hartert, Kat. Vogelsamml.* p. 185 (1891).

Turtur modestus, *Schleg. De Dierent.* p. 206 (1864).

Haplœnas modesta, *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 278 (1890).

Adult male. Slate-colour, with reflections of golden green and lilac on the hind head, nape, mantle, and also all round the neck, although in front less than behind: "iris brick-red, with an inner tinge of yellow; orbits yellow; bill and feet black" (*Wallace*). Total length about 15 inches, wing 8, tail 7·75, bill 0·75, tarsus 0·95.

Female. Similar to the male.

Hab. Timor.

a. Ad. sk.	Timor.	J. B. Jukes, Esq. [P.].
b, c, d. ♂ ad. et ad. sk.	E. Timor.	Wallace Coll.
e, f. Ad. sk.	Timor (*Wallace*).	Gould Coll.

6. MACROPYGIA.

Type.

Macropygia, *Sw. Class. B.* ii. p. 348 (1837)..... M. phasianella.
Coccyzura, *Hodgs. J. A. S. B.* xii. p. 937 (1843) .. M. tusalia.
Coccyxura, *Hodgs. in Gray's Zool. Misc.* p. 85 (1844).

Cf. *Wardlaw Ramsay, Ibis*, 1890, pp. 214–246.

Range. Oriental and Australian Regions, from Nepal on the north-west to the New Hebrides on the east, and the Australian continent on the south.

Key to the Species *.

a. Outer tail-feathers grey, at least on the outer web; upper parts conspicuously barred.
a'. General colour of the upper parts darker, purple-chestnut: larger, wing 7 to 7·5 inches; tail constantly barred ..... *tusalia*, p. 338.

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* MACROPYGIA? MACROURA.

Tourterelle à large queue du Sénégal, *D'Aubent. Pl. Enl.* 329.

Tourocco, *Buff. Hist. Nat. Ois.* ii. p. 553 (Senegal, *Adanson*) (1771).

Columba macerona (*errore pro* macroura), *Müll. S. N. Suppl.* p. 134, n. 43 (1776) (*ex Pl. Enl.* 329); *Cass. Pr. Ac. Nat. Sc. Philad.* 1864, p. 248.

Great-tailed Turtle, *Lath Syn.* ii. 2, p. 667, n. 66 (1783).

Columba macroura, *Gm. S. N.* i. p. 790, n. 71 (1788); *Lath. Ind. Orn.* ii. p. 615, n. 76 (1790); *Bonn. Tabl. Enc. Méth.* p. 255 (1790); *Temm. Pig. et Gallin.* i. pp. 344, 485 (1813) (Ceylon); *Vieill. N. D.* xxvi. p. 388 (1818); *Steph. Gen. Zool.* xi. p. 91 (1819); *Desm. Dict. Sc. Nat.* xl. p. 377 (1826); *Wagl. Syst. Av.* Columba, sp. 37 (1827); *Selb. Nat. Libr., Pigeons*, p. 120 (1835); *Less. Compl. de Buff., Ois.* viii. p. 67 (1837); *id. op. cit.* 2nd ed. p. 287 (1838); *Wald. P. Z. S.* 1872, p. 466; *Wardl. Rams. Ibis*, 1890, p. 216.

Macropygia macrura, *G. R. Gr. Gen. B.* ii. p. 471, n. 4 (1844); *Rchnb. Syn. Av.* f. 1399 (*ex D'Aubenton*) (1847); *Bp. Consp. Av.* ii. p. 57 (1854); *id.*

b'. Transverse bars of the tail in some specimens clearly obsolete ..... *swinhoei*, p. 340.
c'. General colour of the upper parts more rufous, with the barring broader: smaller, wing 6·5 to 7 inches ..... [p. 340. *leptogrammica*,
b. Outer tail-feathers rufous, with no grey.
d'. Breast-feathers normal, not bifurcated.
a''. Central tail-feathers uniform, not barred.
a'''. Wing more than 6 inches.
*a*⁴. Upper parts earthy brown above, barred beneath; no metallic colours, or scarcely any, on the nape.
*a*⁵. Upper parts dark brown, with darker and lighter bars; head not uniform with the back.
*a*⁶. Head rufous cinnamon, almost uniform in the adult birds ..... *magna*, p. 342.
*b*⁶. Head dark brown, the feathers tipped with whitish buff or rufous. [p. 342. *timorlaoensis*,
*b*⁵. Upper parts mouse-brown, with no barrings; head uniform with the back ..... [p. 343. *macassariensis*,
*b*⁴. General plumage pale cinnamon, with the edges of the feathers deeper cinnamon, the upper parts minutely freckled with brown; quills almost entirely rufous, both on the inner and outer webs ..... [p. 344. *cinnamomea*,
*c*⁴. Upper parts dark chestnut-brown.
*c*⁵. Inner webs of the quills, except at the tip, almost entirely rufous cinnamon. *rufipennis*, p. 344.
*d*⁵. Inner webs of the quills with narrow rufous-cinnamon edges or almost uniform.
*c*⁶. Prevailing colour of the plumage almost uniform chestnut or cinnamon rufous, but somewhat lighter on the underparts.
*a*⁷. Underparts bright cinnamon, with an amethyst tinge on the breast.

Compt. Rend. xxxix. p. 1112 (1854), xl. p. 219, n. 166 (1855); *id. Coup d'œil Ordre Pig.* pp. 28, 57, n. 166 (1855); *Rchnb. Tauben*, i. p. 87, t. 251. f. 1349 (1862); *Wall. Ibis*, 1865, p. 390; *id. J. f. O.* 1866, p. 283; *G. R. Gr. Hand-list*, ii. p. 237, n. 9303 (1870); *Holdsw. P. Z. S.* 1872, p. 466; *Gieb. Thes. Orn.* ii. p. 517 (1875); *Legge, B. of Ceyl.* p. 699 (1880).

Upper parts uniform cinnamon; breast reddish vinous, remainder of underparts reddish white; lateral tail-feathers tipped with white: bill and feet red. Length of the tail 6 inches.

Hab. Senegal (*Adanson*); Ceylon (?) (*Levaillant, Temminck*).

This bird has not yet been identified; according to Wagler it is the same as, or very nearly allied to, *M. phasianella*. Wardlaw Ramsay says that the name of *M. macroura* had been given in the British Museum to specimens of *M. amboinensis* (Linn.).

a^6. Upper surface of the tail, like the back, dark chestnut with a purplish tinge ..... *tenuirostris*, p. 346.

b^6. Upper surface of the tail, like the back, rufous cinnamon; inner web of the quills broadly edged with rufous cinnamon.

a^7. Smaller and lighter; wing 6·7 to 7 inches..... *emiliana*, p. 347.

b^7. Larger, darker, and brighter; wing 7·3 inches ..... *modigliani*, p. 349.

b^5. Underparts paler and duller cinnamon rufous; upper surface of the tail rufous brown, paler and duller than in the three preceding species..... *phasianella*, p. 349.

d^4. Upper parts dark chestnut; lower parts, especially the lower breast and abdomen, much paler, of a buff colour.

c^5. Underparts more or less conspicuously barred.

c^6. Breast not very conspicuously vinous.

c^7. Head and cheeks rufous, with no greyish, but with a vinous tinge; barrings of the underparts almost confined to the breast ..... *amboinensis*, p. 351.

d^7. Head vinous grey; barrings of the underparts extended to the abdomen ..... *keiensis*, p. 352.

e^7. Head whitish buff on the forehead.

a^{10}. Crown and occiput greyish rufous.

a^{11}. Smaller, wing 6·1 to 6·6 inches; paler above. *albicapilla*, p. 353.

b^{11}. Larger, wing 7 inches; darker above and more boldly barred below.. *sanghirensis*, [p. 354.

b^{10}. Crown, occiput, and nape conspicuously cinereous, with metallic-green reflections..... *maforensis*, p. 355.

d^6. Breast conspicuously vinous.

f^7. Crown and occiput vinous, with a slight wash of grey. *doreya*, p. 355.

g^7. Crown and occiput cinereous, with no vinous tinge. *cinereiceps*, p. 357.

d^5. Underparts with no barrings, or very slightly indicated.

e^6. Crown, occiput, and nape with a cinereous shade ..... *grisescuchs*, p. 357.

f^6. Crown and occiput rufous, with a slight vinous tinge.

h^2. Forehead, cheeks, and throat pale cinnamon ..... *batchianensis*, [p. 357.
i^2. Forehead pale greyish rufous; cheeks rufous with a vinous tinge ..... *goldiei*, p. 358.
j^2. Forehead, cheeks, and throat buff, the throat almost white; abdomen very pale buff..... *carteretia*, p. 359.
b'''. Wing about 5·5 inches ..... *ruficeps*, p. 360.
b''. Central tail-feathers and also the rump conspicuously barred ..... *nigrirostris*, p. 361.
e'. Breast-feathers bifurcated.
c''. General colour bright cinnamon; tips of the tail-feathers also cinnamon beneath ..... *rufo-castanea*, [p. 363.
d''. General colour dull brown-cinnamon; of the tail-feathers greyish brown beneath ..... *rufa*, p. 363.

1. Macropygia tusalia.

Coccyzura tusalia, *Hodgs. in Blyth, J. A. S. B.* xii. p. 937, note (1843); *G. R. Gr. Hand-list*, ii. p. 237, n. 9305 (part.) (1870); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 278 (1890).
Columba (Macropygia) tusalia, *Blyth, l. c.* p. 936 (1843).
Coccyxura tusalia, *Hodgs. in Gray's Zool. Misc.* p. 85, n. 663 (1844).
Macropygia leptogrammica, *Blyth (nec Temm.), J. A. S. B.* xiv. p. 869 (1845); *id. Ann. & Mag. N. H.* xix. p. 179 (1847); *id. Cat. B. Mus. A. S. B.* p. 235, n. 1424 (1849); *G. R. Gr. Gen. B.* App. p. 23 (1849); *Wald. Ibis*, 1873, p. 315; *Schleg. Mus. P.-B.* Columbæ, p. 107 (part.) (1873); *Wald. (nec Temm.) Ibis*, 1875, p. 459 (Karen Hills, Tonghoo); *Tweedd. Orn. Works*, p. 247 (1881); *Oates, B. Brit. Burm.* ii. p. 295 (1883).
Macropygia tusalia, *Cab., fide Bp. Consp. Av.* ii. p. 58 (1854); *id. Compt. Rend.* xxxix. p. 1112 (1854), xl. p. 219, n. 167 (1855); *id. Coup d'œil Ordre Pig.* pp. 28, 57, n. 167 (1855); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 40 (1856); *Rchnb. Tauben*, i. p. 88 (1862); *Jerd. B. of Ind.* iii. p. 473 (syn. emend.) (1864); *Wall. Ibis*, 1865, p. 390; *id. J. f. O.* 1866, p. 283; ? *David, N. Arch. du Mus., Bull.* vii., *Cat.* n. 343 (1871) (Moupin); *Elwes, P. Z. S.* 1873, p. 666; *Hume, Nests & Eggs*, iii. p. 500 (1873); *Gieb. Thes. Orn.* ii. p. 518 (part.) (1875); *Wald. in Blyth's B. Burm.* p. 146 (1875); *Wardl. Rams. Ibis*, 1877, p. 468; *Hume & Davis. Str. Feath.* vi. p. 419 (1878) (Tenasserim); *Hume, Str. Feath.* viii. p. 110 (1879); *Salv. Cat. B. Strickl. Coll.* p. 547 (1882); *Hume, Str. Feath.* xi. p. 297 (1888); *Tristr. Cat. Coll. B.* p. 39 (part.) (1889); *Wardl. Rams. Ibis*, 1890, p. 217.
Coccyzura leptogrammica, *David & Oust. Ois. Chine*, p. 382 (part.) (1877).

Adult male. Forehead, chin, and throat vinaceous buff; crown, occiput, nape, mantle, and sides of the neck shining metallic green, with purple or bronze reflections according to light; back, rump, wings, wing- and upper tail-coverts with irregular black and purple chestnut bars; lower throat, crop-region, and breast greyish vinous, the crop-region with golden green or bronze reflections, and more or less with blackish bars, sometimes evanescent; flanks and axillaries

vinous slate-grey; abdomen and under tail-coverts buff; quills brown; under wing-coverts with black and chestnut bars; two central pairs of rectrices barred with black and vinous chestnut; third pair reddish brown, with a broad slate-grey bar about the middle and narrow blackish bars towards the tip and at the base of the outer web, the three outer pairs slaty grey with a broad black bar, and a chestnut spot on the inner web of the outermost: "iris white, surrounded by a rim of pale lilac; orbital skin grey, with an inner rim of purple; bill blackish; legs purplish pink" (*W. Ramsay*). Total length 15·5 inches, wing 7·5, tail 7·5 to 8, bill 0·65, tarsus 0·85.

Female. Similar to the male on the upper parts, but somewhat duller; underparts buff, more rufous on the crop-region, and barred, except on the throat, middle of the abdomen, and under tail-coverts, with brown-black; the crop-region has metallic-green reflections.

Young. The head is transversely barred above, either with or without indications of metallic colour according to age; the plumage is more rufous beneath, especially on the breast, which, together with the throat, shows broad black crescentic bars; the chestnut spot on the outer tail-feathers is brighter, and the tail-feathers are tipped with rufous.

Hab. Northern India (as far west as Nepal), Assam, Munipur, and Tenasserim; it is also known from Moupin.

a. ♀ ad. sk.	[Celebes.]	Leyden Museum [P.].
b. ♂ ad. sk.	Simla.	Hume Coll.
c. ♀ ad. sk.	Kumaon (*Strachey*).	India Museum [P.].
d–i. ♂ ♀ ad. sk.	Nepal (*Hodgson*).	India Museum [P.].
k–p. ♂ ♀ ad. et ♀ imm. sk.	Nepal.	B. H. Hodgson, Esq. [P.]. (Types of species.)
q, *r*, *s*. ♂ ♀ ad. sk.	Native Sikhim, Jan.–June, Aug. (*L. Mandelli*).	Hume Coll.
t–n'. ♂ ♀ ad. et juv. sk.	Sikhim, Jan.–June, Oct.–Dec. (*L. Mandelli*).	Hume Coll.
o'. ♀ ad. sk.	Sikhim, Dec. (*L. Mandelli*).	Seebohm Coll.
p'. ♂ ad. sk.	Sikhim, Nov. (*L. Mandelli*).	Salvin-Godman Coll.
q'. ♀ ad. sk.	Darjeeling (*A. Grote*).	Gould Coll.
r'. ♂ ad. sk.	Darjeeling.	Tweeddale Coll.
s'–y'. ♂ ♀ ad. et juv. sk.	Darjeeling, Feb., Dec.	Hume Coll.
z'–c''. ♂ ♀ ad. et ♀ juv. sk.	Darjeeling.	Seebohm Coll.
d''. ♂ ad. sk.	Darjeeling, 4000 feet, May (*H. J. Elwes*).	Salvin-Godman Coll.
e'', *f''*. ♂ ad. et ♂ juv. sk.	Mongphoo, near Darjeeling.	Hume Coll.
g''. ♂ ad. sk.	Bhotan Doars, April (*L. Mandelli*).	Hume Coll.
h''. ♀ ad. sk.	Assam.	J.M.Foster, Esq. [P.].
i'', *k''*. ♀ ad. sk.	Dibrughur, Feb., May (*J. R. Cripps*).	Hume Coll.

l'', *m''*, *n''*. ♂ ♀ ad. sk.	Khasia Hills (*Griffiths*).	India Museum [P.].
o'', *p''*. ♂ ♀ imm. sk.	N. Khasia Hills, Feb. (*A. W. Chennell*).	Tweeddale Coll.
q''. ♀ ad. sk.	N. Cachar (*H. H. Godwin-Austen*).	Tweeddale Coll.
r''–*v''*. ♂ ♀ ad. sk.	Manipur, April, May (*A. O. H.*).	Hume Coll.
w''. ♂ ad. sk.	Karen Hills, April (*R. G. W. R.*).	Tweeddale Coll.
x''. ♀ ad. sk.	Karen Nee, March (*R. G. W. R.*).	Tweeddale Coll.
y''. ♂ ad. sk.	Tonghoo Hills, April (*R. G. W. R.*).	Tweeddale Coll.
z''. ♀ imm. sk.	Kollidoo, Feb. (*W. Davison*).	Hume Coll.
*a*³. ♀ ad. sk.	Mooleyit, Jan. (*W. Davison*).	Hume Coll.
*b*³, *c*³. ♀ imm. sk.	[Java.]	Salvin-Godman Coll.

2. Macropygia swinhoei.

Macropygia tusalia, var. minor, *Swinh. Ibis*, 1870, p. 355 (Hainan).
Coccyzura tusalia, part., *G. R. Gr. Hand-list*, ii. p. 237, n. 9306 (1870).
Coccyzura minor, *Swinh. P. Z. S.* 1871, p. 397 (Hainan); *David & Oust. Ois. Chin.* p. 383 (1877).
Macropygia tusalia, part., *Gieb. Thes. Orn.* ii. p. 518 (1875); *Tristr. Cat. Coll. B.* p. 39 (part., Hainan) (1889).
Macropygia swinhoii, *Wardl. Rams. Ibis*, 1890, p. 218 (Hainan).

"This is a very dark race of *M. tusalia*, which, so far as is known, is peculiar to the island of Hainan. The transverse bars on the tail are nearly obsolete in some specimens" (*Wardlaw Ramsay*). Size scarcely smaller than that of *M. tusalia*.

Hab. Hainan.

a, *b*. ♂ ♀ ad. sk.	Hainan, Feb. (*R. Swinhoe*).	Seebohm Coll. (Types of *Coccyzura minor*, Swinh., and of species.)
c, *d*. ♂ ♀ ad. sk.	Hainan, Feb. (*R. Swinhoe*).	Tweeddale Coll.
e, *f*. ♂ ♀ ad. sk.	Hainan, Feb.	R. Swinhoe, Esq. [C.].

3. Macropygia leptogrammica.

? Columba phasianella. juv., *Temm. Pl. Col.* (text of pl. 100, livr. 17, 1824).
? Columba unchall, *Wagl.* * *Syst. Av.* Columba, sp. 38 (1827); *Less. Compl. de Buff., Ois.* viii. p. 68 (1837); *id. op. cit.* 2nd ed. p. 288 (1838).
? Columba nuchali (*sic*), *Selb. Nat. Libr., Pigeons*, p. 120 (1835).

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* I have very little doubt about the identity of *C. unchall* and *C. leptogrammica*.

Columba leptogrammica, *Temm. Pl. Col.* 500 (livr. 95, 1835) (Java and Sumatra); *Less. Compl. de Buff., Ois.* viii. p. 69 (1837); *id. op. cit.* 2nd ed. p. 288 (1838).

Macropygia leptogrammica, *G. R. Gr. List Gallinæ B. M.* p. 11 (1844); *id. Gen. B.* ii. p. 471, n. 3 (1844); *Rchnb. Syn. Av.* f. 1402 (1847); *Bp. Consp. Av.* ii. p. 58 (1854); *id. Compt. Rend.* xxxix. p. 1112 (1854), xl. p. 219, n. 168 (1855); *id. Coup d'œil Ordre Pig.* pp. 28, 37, n. 168 (1855); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 39 (1856); *Rchnb. Tauben*, i. p. 88, t. 252. f. 1402 (1862); *Wall. Ibis*, 1865, p. 390 (W. Java); *id. J. f. O.* 1866, p. 282; *Blyth, Ibis*, 1870, p. 173 (Celebes!); *Wald. Tr. Zool. Soc.* viii. p. 85 (1872); *id. Ibis*, 1873, p. 315; *Elwes, P. Z. S.* 1873, p. 679; *Schleg. Mus. P.-B.* Columbæ, p. 107 (part.) (1873); *Gieb. Thes. Orn.* ii. p. 517 (from Java and Sumatra only) (1875); ? *Sclat. P. Z. S.* 1876, p. 274 (Celebes!); *Salvad. Ann. Mus. Civ. Gen.* xiv. p. 247 (1879) (Sumatra); *Tweed. Orn. Works*, p. 247 (1881); *Salvad. Orn. Pap. e Mol.* iii. p. 151 (1882); ? *Sclat. List Vert. An.* 8th ed. p. 451 (Celebes!) (1883); *Vorderm. N. T. N. I.* xlv. p. 398 (Java) (1885); *Büttik. Not. Leyd. Mus.* ix. p. 76 (Sumatra) (1886); *Vorderm. N. T. N. I.* xlix. p. 413 (1889); *Tristr. Cat. Coll. B.* p. 39 (Java) (1889); *Wardl. Rams. Ibis*, 1890, p. 219; *Hartert, Kat. Vogelsamml.* p. 185 (1891); *Vorderm. N. T. N. I.* li. p. 401 (Java) (1892).

Coccyzura leptogrammica, *Auct. fide Bp. Consp. Av.* ii. p. 58 (1854); *G. R. Gr. Hand-list*, ii. p. 237, n. 9305 (1870); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 278 (1890).

Macropygia walik-mehra, *Rchnb. Tauben*, i. p. 86, n. 191 (1862) (Java), ii. p. 176, *Novit. Suppl.* t. iii. f. 29 (1862); *Wall. Ibis*, 1865, p. 390; *id. J. f. O.* 1866, p. 283; *Gieb. Thes. Orn.* ii. p. 518 (1875).

Turtur leptogrammicus, *Schleg. De Dierent.* p. 206 (1864).

Macropygia walichæhra (*sic*), *G. R. Gr. Hand-list*, ii. p. 237, n. 9302 (1870); *Elwes, P. Z. S.* 1873, p. 679.

Macropygia, sp., *Sharpe, P. Z. S.* 1887, p. 443 (Perak).

Macropygia tusalia, *Sharpe* (*nec Hodgs.*), *l. c.* (Perak).

Like *M. tusalia*, but smaller: wing 6·5 to 7 inches.

Adult male. The barring of the upper surface is conspicuously broader and more rufous, especially on the tail, and the metallic colours less bright. The plumage is, perhaps, more rufous below, and the under tail-coverts generally, not always, cinnamon rufous rather than buff; the Javan male has the nape green with purple reflections, while the Sumatran male has the reverse, purple with green reflections; but the same variations are met in the Indian *M. tusalia*: "bill black; iris very narrow, yellow; eyelids red; feet red" (*Wallace*).

Adult female. Similar to that of *M. tusalia*, but the sides and flanks decidedly more rufous. The head, neck, and mantle are barred brown and rufous like the rest of the upper surface; a slight tinge of purple on the head; the feathers of the neck, mantle, and breast with transverse bars of golden brown, tipped metallic green, with purple reflections.

Young. Much like the female, but with light bars on the hind neck and mantle pale buffy in place of rufous, and the metallic colours confined to the bars on the breast.

Hab. The hills of Java and Sumatra, up to 7500 feet, and the Malay Peninsula.

The only specimen from Perak enumerated below is a male, and differs in the irregularity of the tail-bars, which are bent, instead of running straight across the tail; but similar individual variations occur also in allied species.

a. ♂ ad. sk.	Hills of Larut, Perak.	L. Wray, Esq. [P.].
b. ♂ ad. sk.	Sumatra (*Carl Bock*).	Salvin-Godman Coll.
c–h. ♂ ♀ ad. et juv. sk.	Sumatra (*Carl Bock*).	Tweeddale Coll.
i, k. ♂ ♀ ad. sk.	W. Java.	Wallace Coll.
l. ♂ ad. sk.	W. Java (*Wallace*).	Tweeddale Coll.

4. Macropygia magna.

Macropygia magna, *Wall. P. Z. S.* 1863, p. 497 (Timor); *id. Ibis*, 1865, p. 389; *id. J. f. O.* 1866, p. 282; *G. R. Gr. Hand-list*, ii. p. 237, n. 9299 (1870); *Schleg. Mus. P.-B.* Columbæ, p. 108 (1873); *Gieb. Thes. Orn.* ii. p. 518 (1875); *Wardl. Rams. Ibis*, 1890, p. 239.

Male, apparently adult. Head cinnamon-rufous; nape and mantle minutely freckled and barred with dark brown and buff; remainder of the upper surface brown, more or less clearly barred and tipped with rufous, especially on the wing-coverts; beneath buff, conspicuously barred with dark brown, the breast-feathers tipped with paler; chin, throat, and lower tail-coverts more rufous and unbarred; under wing-coverts, axillaries, and inner part of the inner webs of the quills bright cinnamon-rufous; tail pale brown, two outer rectrices rufous, brighter at the base of the inner webs, and with a dark band on the inner web extending towards the base: "iris pale golden orange" (*Forbes*): "bill blackish; feet pale pink-red" (*Wallace*). Total length about 16 inches, wing 7·7, tail 8·6 to 9, bill 0·8, tarsus 0·9.

Female. Similar to the male, but the feathers of the crown and occiput show some blackish bars.

Young. More rufous above, the head mottled with black; upper tail-coverts barred; underparts rufous, the breast-feathers blackish with rufous edges; tail more rufous than in the adult bird.

Hab. Timor.

a, b, c. ♂ et juv. sk.	E. Timor.	Wallace Coll. (Types of species.)
d, e. ♀ ad. et juv. sk.	E. Timor (*Wallace*).	Gould Coll.
f. ♂ juv. sk.	Fatunabo, near Delhi, Timor, 1700 feet, Jan.	H. O. Forbes, Esq. [C.].

5. Macropygia timorlaoensis.

Macropygia, sp. inc., *Sclat. P. Z. S.* 1883, pp. 51, 195, 200.

Macropygia keiensis, *Meyer* (*nec Salvad.*), *Sitzb. u. Abh. Ges. Isis*, 1884 p. 52; *Forbes, P. Z. S.* 1884, p. 433; *id. Natural. Wander.* p. 366 (1885).

Macropygia timorlaoënsis, *Meyer, Zeitschr. f. ges. Orn.* 1884, p. 214 (Timor Laut); *Büttik. Not. Leyd. Mus.* viii. p. 46 (1886); *Wardl. Rams. Ibis*, 1890, p. 240; *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 61 (*Agg. Orn. Pap. e Mol.* p. 187) (1891).
Macropygia, sp., *Tristr. Cat. Coll. B.* p. 39 (Timor Laut) (1889).

Adult male. Upper part of the head dark brown, the feathers tipped with whitish buff or rufous; nape and mantle barred with whitish buff and brown or dark metallic green; rest of the upper surface pale hair-brown, freckled with whitish buff; wing-coverts, secondaries, and tertiaries darker, broadly tipped with rufous; beneath buff, broadly barred with dark brown, "which has metallic-purple reflections on the breast" (*W. R.*); lower tail-coverts rufous, unbarred except at the base; under wing-coverts and inner edges of the quills bright cinnamon-rufous; tail pale hair-brown, two outer feathers only, as in *M. magna* and *M. macassariensis*, with a dark band, not very conspicuous, towards the tip of the inner web, and extending towards the base: "irides pale blue, with an outer rim of pink; bill corneous; legs and feet purple" (*Forbes*). Total length about 15·5 inches, wing 7·6, tail 8, bill 0·75, tarsus 0·98.

Female. According to Major Wardlaw Ramsay, similar to the male, but none of the females seen by me have any metallic green on the nape and mantle, or metallic-purple reflections on the breast.

A female, apparently not fully adult, has the under tail-coverts barred.

Hab. Timor Laut.

a, b. ♀ ad. sk.	Larat, Timor Laut, Aug., Sept.	H. O. Forbes, Esq. [C.].
c. ♂ ad. sk.	Larat, Timor Laut, Sept. (*H. O. Forbes*).	Salvin-Godman Coll.
d. ♀ imm. sk.	Larat, Timor Laut, Sept. (*H. O. Forbes*).	Tweeddale Coll.

6. Macropygia macassariensis.

Macropygia amboinensis, var. macassariensis, *Wall. Ibis*, 1865, p. 389 (Macassar, Celebes); *id. J. f. O.* 1866, p. 240; *G. R. Gr. Handlist*, ii. p. 237, n. 9292 (1870); *Lenz, J. f. O.* 1877, p. 379.
Macropygia macassariensis, *Wald. Tr. Zool. Soc.* viii. p. 85 (1872); *Tweedd. Orn. Works*, p. 185 (1881); *Wardl. Rams. Ibis*, 1890, p. 240.
Macropygia amboinensis, var. albicapilla, *Brüggem. Abh. nat. Ver. Brem.* v. p. 86 (part.) (1876).
Macropygia albicapilla, part., *Meyer, Ibis*, 1879, p. 137; ? *Guillem. P. Z. S.* 1885, p. 558 (specim. *e, f*); *Blas. Zeitschr. ges. Orn.* iii. pp. 133, 179 (1886).

Adult male. Above mouse-brown, minutely freckled with yellowish buff on the nape and mantle; wings brown, the upper wing-coverts with traces of rufous tips; sides of the head mouse-brown throat paler; remainder of the lower surface buff, more whitish on the breast, barred with brown even on the under tail-coverts; innermost

under wing-coverts, axillaries, and inner edges of the remiges rufous-cinnamon; tail above pale brown, with the tips of the feathers whitish; two outer tail-feathers marked with rufous about the middle of the inner web, and with a broad brown-black bar extending on the inner web towards the base. Total length about 15 inches, wing 7·5, tail 7·5, bill 0·75, tarsus 0·96.

Hab. Macassar, S. Celebes.

a. ♂ ad. sk. Macassar. Wallace Coll. (Type of species.)

7. Macropygia cinnamomea.

Macropygia cinnamomea, *Salvad. Ann. Mus. Civ. Gen.* (2) xii. p. 140 (1892) (Engano).

Pale rufous-cinnamon, edges of the feathers of a deeper cinnamon colour; upper part of the head more or less washed with vinous; feathers of the throat with dusky lateral edges; back and rump more or less barred with dusky, the bars very narrow and almost obsolete; wings cinnamon, minutely freckled with brown; quills cinnamon, with the apical portion of the inner web dusky brown; three central pairs of rectrices greyish brown, fourth pair tinged with rufous, the two outer pairs pale cinnamon, with a broad subapical black bar extending towards the base of the inner web: "iris red; bill and feet dusky brown" (*Modigliani*). Total length about 13·5 inches, wing 8·1, tail 7·2, bill 0·8, tarsus 0·95.

This species is very remarkable on account of the pale cinnamon-colour of its plumage, and for the complete absence of any trace of metallic reflections; it seems allied to *M. rufipennis* from the Andamans and Nicobars, having the central tail-feathers greyish brown; but it differs in the much paler colouring, in the upper wing-coverts being pale cinnamon with brighter edges, while in *M. rufipennis* they are dusky with cinnamon edges, and in the complete absence of dusky bars from the underparts.

Hab. Engano.

a, b. Ad. et ♀ ad. sk. Engano, May. Dr. E. Modigliani [C.]. (Two of the types of the species.)

8. Macropygia rufipennis.

Macropygia rufipennis, *Blyth, J. A. S. B.* xv. p. 371 (1846) (Nicobar Isl.); *id. Cat. B. Mus. A. S. B.* p. 234, n. 1422 (1849); *G. R. Gr. Gen. B.* App. p. 23 (1849); *Bp. Consp. Av.* ii. p. 56 (1854); *id. Compt. Rend.* xxxix. p. 1111 (1854), xl. p. 219, n. 159 (1855); *id. Coup d'œil Ordre Pig.* pp. 27, 57, n. 159 (1855); *Rchnb. Tauben*, i. p. 86 (1862); *Pelz. Novara Reise, Vög.* p. 109 (1865); *Wall. Ibis*, 1865, p. 389; *id. J. f. O.* 1866, p. 282; *Beav. Ibis*, 1867, p. 332 (Andamans); *G. R. Gr. Hand-list*, ii. p. 237, n. 9300 (1870); *Ball, J. A. S. B.* xxxix. p. 32 (1870), xli. p. 287 (1872); *id. Str. Feath.* i. p. 80 (1872); *Wald. Ibis*, 1873, p. 314; *Hume, Str. Feath.* ii. p. 266 (1874); *Gieb. Thes. Orn.* ii. p. 518 (1875); *Hume, Str. Feath.* viii. p. 110 (1879); *Tweedd. Orn. Works,*

p. 247 (1881); *Tristr. Cat. Coll. B.* p. 39 (1889); *Wardl. Rams. Ibis*, 1890, p. 224; *W. L. Sclat. Ibis*, 1892, p. 86 (type).

Adult male. General colour above brown-chestnut; head cinnamon, with a slight purplish or vinous tinge above; throat paler: the hind neck and mantle minutely freckled with rufous and barred with brown, and, in some specimens, with slight amethystine reflections, stronger on the sides of the neck and on the breast; breast and abdomen cinnamon, barred with brown, and brighter on the lower abdomen and under tail-coverts, the latter uniform with no bars; obsolete dusky bars on the smaller upper wing-coverts; under wing-coverts and inner webs of the quills towards the base cinnamon; tail, like the back, brown-chestnut; the three outer tail-feathers, as usual, brighter rufous, and with a black subapical dark bar: "iris light blue, encircled with a ring of carmine; orbital ring leaden blue; bill and legs purplish pink" (*Wardlaw Ramsay*). Total length about 15·5 inches, wing 7·3 to 7·7, tail 8, bill 0·9, tarsus 1.

Young. Head cinnamon, bases of the feathers of the crown and the lateral edges of each feather dark brown or blackish, giving the head the appearance of dark striations; the hind neck and mantle are transversely barred with rufous and brown-black, the bars being broader than in the adult male; the upper wing-coverts and quills broadly edged with cinnamon; underparts rufous cinnamon, nearly uniform, only the edges of the feathers somewhat of a deeper tinge.

Whether the *adult female* is really similar to the male, as Major Wardlaw Ramsay believes, or whether it resembles the young bird, as I am inclined to believe, I cannot positively assert.

Hab. Andaman and Nicobar Islands.

The inner web of the primaries, for the greater part cinnamon, easily distinguishes this species, the male of which is characterized by the head being cinnamon, and the hind neck and mantle minutely freckled with rufous and barred with brown.

a. Imm. sk.	Andamans.	Salvin-Godman Coll.
b–h. ♂ ♀ ad. et imm. sk.	S. Andamans, June–Oct. (*R. J. Wimberley*).	Hume Coll.
i–o. ♂ ♀ ad. et imm. sk.	S. Andamans, Jan., March, Dec. (*R. G. W. R.*).	Tweeddale Coll.
p. ♀ imm. sk.	Strait Is., S. Andamans, April (*W. Davison*).	Hume Coll.
q. ♂ imm. sk.	Aberdeen, S. Andamans, April (*W. D.*).	Hume Coll.
r. ♀ imm. sk.	Dungleaf Creek, Dec. (*W. D.*).	Hume Coll.
s. ♀ juv. sk.	Port Blair, July (*R. J. Wimberley*).	Sharpe Coll.
t, u, v. ♀ imm. sk.	Port Blair, Aug., Sept. (*R. J. W.*).	Hume Coll.
w–c'. ♂ ♀ ad. et imm. sk.	Port Mouat, Jan. (*W. Davison*).	Hume Coll.
d'–g'. ♂ ♀ ad. et imm. sk.	Mt. Harriet, March, Dec. (*W. D.*).	Hume Coll.
h'. ♂ imm. sk.	Camorta, March.	Hume Coll.
i'. ♀ imm. sk.	Camorta, Dec. (*R. J. Wimberley*).	Tweeddale Coll.

k', *l'*. ♀ ad. sk.	Nancowry, Feb. (*W. Davison*).	Hume Coll.
m'. ♀ imm. sk.	Nancowry, Jan. (*R. J. Wimberley*).	Tweeddale Coll.
n'. ♀ ad. sk.	Katchull Is., Feb. (*R. J. W.*).	Tweeddale Coll.
o'. ♀ imm. sk.	Trinkut, Feb. (*R. J. W.*).	Tweeddale Coll.
p'. ♂ imm. sk.	Kondul, March (*W. Davison*).	Hume Coll.
q'. ♀ imm. sk.	Teressa Is., Jan. (*W. D.*).	Hume Coll.
r'. ♂ imm. sk.	Treis Is., March (*W. D.*).	Hume Coll.

9. Macropygia tenuirostris.

Columba phasianella, *Temm. Pl. Col.* 100 (Manilla) (livr. 17, 1824), (nec *Tr. Linn. Soc.* xiii. p. 129, 1821); *Steph. Gen. Zool.* xiv. p. 290 (part.) (1826); *Desm. Dict. Sc. Nat.* xl. p. 357 (part.) (1826); *Wagl. Syst. Av.* Columba, sp. 36 (part.) (1827); *Less. Tr. d'Orn.* p. 473 (part., Manilla) (1831); *Knip & Prév. Pig.* ii. pl. 52 (1838–43).

Macropygia phasianella, *Sw. Class. B.* ii. p. 349 (*ex Pl. Col.* 100) (1837).

Turtur amboinensis, part., *Less. Compl. de Buff., Ois.* viii. p. 67 (1837); *id. op. cit.* 2nd ed. p. 287 (1838).

Macropygia amboinensis, part., *G. R. Gr. List Gen. B.* p. 38 (1840); *id. Gen. B.* ii. p. 471, n. 1 (part.) (1844); *Rchnb. Syn. Av.* f. 1394 (1847).

Macropygia tenuirostris, *G. R. Gr. MSS.*; *Bp. Consp. Av.* ii. p. 57 (1854); *id. Compt. Rend.* xxxix. p. 1111 (1854), xl. p. 219, n. 161 (1855); *id. Coup d'œil Ordr. Pig.* pp. 27, 57, n. 161 (1855); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 39 (1856) (Philippines); *Rchnb. Tauben*, i. p. 87, t. 251. f. 1394 (*ex Temminck*) (1862); *Wall. Ibis*, 1865, p. 390; *id. J. f. O.* 1866, p. 282; *Mart. J. f. O.* 1866, p. 24; *G. R. Gr. Hand-list*, ii. p. 237, n. 9294 (1870); *Wald. Ibis*, 1873, p. 315; *Schleg. Mus. P.-B.* Columbæ, p. 109 (part.) (1873); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 15 (1873); *Gieb. Thes. Orn.* ii. p. 518 (1875); *Wald. Tr. Zool. Soc.* ix. pp. 218, 412 (1875); *Sharpe, Tr. Linn. Soc.*, 2nd ser. *Zool.* i. pp. 347, 353 (1876); *Tweedd. P. Z. S.* 1878, p. 288; *Sharpe, P. Z. S.* 1879, p. 317 (Sooloo Isl.); *Tweedd. Orn. Works*, pp. 247, 382, 412, 594 (1881); *Wardl. Rams. Tweedd. Orn. Works*, App. p. 659 (1881); *Salv. Cat. B. Strickl. Coll.* p. 546 (1882); *Guillem. P. Z. S.* 1885, p. 271; *Sharpe, Ibis*, 1888, p. 203 (Palawan); *Blas. Ornis*, 1888, p. 317 (Palawan); *Tristr. Cat. Coll. B.* p. 39 (1889); *Everett, Journ. Str. Br. R. As. Soc.* 1889, p. 193; *Whiteh. Ibis*, 1890, p. 57 (Palawan); *Wardl. Rams. Ibis*, 1890, p. 221; *Steere, List*, p. 24 (Paragua, Marinduque, Luzon) (1899); ? *Hartert, Kat. Vogels.* p. 185 (1891).

Macropygia eurycerca, *Tweedd. P. Z. S.* 1878, p. 288 (Negros), p. 952 (Mindanao), 1879, p. 73 (Basilan); *id. Orn. Works*, pp. 586, 594, 643, 651 (1881); *Wardl. Rams. Tweedd. Orn. Works*, App. pp. 659, 667 (1881); *Steere, List*, p. 24 (Mindanao, Basilan) (1890).

Adult male. Head, neck, and lower parts cinnamon-rufous, with an amethyst lustre on the hind neck and upper mantle, the latter minutely freckled with brown; upper parts, or back, rump, wings, and tail, dark brown-chestnut, with a slight purple tinge; quills brown; under wing-coverts and inner margins of the quills rufous cinnamon; the three outer pairs of rectrices bright rufous, especi-

ally on the inner webs, and the outermost also on the outer web; all three have a broad black band, extending towards the base of the inner web: "iris yellow, with an outer rim of crimson; orbital region and base of the bill crimson; bill light brown; feet carmine" (*Everett*). Total length about 15 inches, wing 7·3 to 7·7, tail 8, bill 0·6, tarsus 0·8.

Young. Head and lower parts cinnamon; throat pale rufous; on the breast the grey bases of the feathers show through the cinnamon edges; upper parts deep brown; hind neck and upper mantle with fulvous and black bars; the interscapular region has the edges of the feathers very narrow pale buff; rump and upper tail-coverts deep chestnut, and minutely freckled with brown; the upper wing-coverts and the inner secondaries have broad rufous-cinnamon edges.

Adult female. Contrary to Major Wardlaw Ramsay's opinion, I think that the specimens of this sex differ from the male, and resemble the young birds, from which they differ in being more uniform on the back and wings, which do not show the broad rufous-cinnamon edges on the upper wing-coverts.

Hab. Philippines and Sooloo Islands.

This species is easily distinguished in every stage by the dark chestnut-brown tail, much darker than in the allied *M. phasianella* and *M. emiliana*.

The Palawan bird, of which I have seen three adult males, is shot with amethyst across the breast; this is wanting, or very little apparent, in the bird from the more eastern Philippines.

a. ♂ ad. sk.	Taguso, Palawan, July.	J. Whitehead, Esq. [P.].
b. Imm. sk.	Palawan.	—Lemprière, Esq. [C.].
c. ♂ ad. sk.	Philippine Is.	Cuming Coll. (Type of species.)
d. ♂ ad. sk.	Philippine Is. (*Cuming*).	Gould Coll.
e. Ad. sk.	Luzon, April (*A. B. Meyer*).	Tweeddale Coll.
f. ♂ ad. sk.	Manilla (*Maitland-Heriot*).	Tweeddale Coll.
g. ♂ ad. sk.	Negros, March (*A. B. Meyer*).	Tweeddale Coll. (Type of *M. eurycerca*, Tweedd.)
h. ♂ ad. sk.	Valencia, Aug. (*A. H. Everett*).	Tweeddale Coll.
i–m. ♂ ♀ ad. et imm. sk.	Zamboanga, March, April (*A. H. Everett*).	Tweeddale Coll.
n, o, p. ♀ ad. et imm. sk.	Basilan, May (*A. H. Everett*).	Tweeddale Coll.
q. ♂ ad. sk.	Sulu Is.	F. W. Burbidge, Esq. [C.].

10. Macropygia emiliana.

? Columba amboinensis, *Horsf.* (*nec Linn.*) *Tr. Linn. Soc.* xiii. p. 183 (1821) (Java).

? Macropygia phasianella, *Hartl.* (*nec Temm.*) *Syst. Verz.* p. 98 (1844) (Java).

Macropygia unchall, *G. R. Gr.* (*nec Wagl.*) *Gen. B.* ii. p. 471, n. 2

(1844); *id. List Gallinæ B. M.* p. 11 (1844); *id. List B. Brit. Mus.* Columbæ, p. 39 (1856); *id. Hand-list*, ii. p. 237, n. 9298 (1870).

Macropygia emiliana, *Bp. Consp. Av.* ii. p. 58 (Java) (1854); *id. Compt. Rend.* xxxix. p. 1111 (1854), xl. p. 219, n. 164 (1855); *id. Coup d'œil Ordre Pig.* pp. 27, 57, n. 164 (1855); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 39 (1856); *Rchnb. Tauben*, i. p. 88 (1862); *Wall. Ibis*, 1865, p. 390 (Java, Lombock); *id. J. f. O.* 1866, p. 282; *G. R. Gr. Hand-list*, ii. p. 237, n. 9296 (1870); *Wald. Ibis*, 1873, p. 315; *Elwes, P. Z. S.* 1873, p. 679; *Sousa, Mus. Nac. Lisb.* Columbæ, p. 15 (1873); *Gieb. Thes. Orn.* ii. p. 517 (1875); *Tweedd. Orn. Works*, p. 247 (1881); *Sclat. List Vert. An.* 8th ed. p. 451 (1883); *Everett, Journ. Str. Br. R. As. Soc.* 1889, p. 193; *Sharpe, Ibis*, 1890, p. 137 (Kina Balu); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 278 (1890); *Wardl. Rams. Ibis*, 1890, p. 222 (Lombock, Java, Borneo).

Macropygia æmiliana, *Wall. P. Z. S.* 1863, p. 486 (Lombock).

? Macropygia amboinensis, *Pelz. (nec Linn.) Novara Reise, Vög.* p. 109 (1865).

Macropygia tenuirostris, part., *Schleg. Mus. P.-B.* Columbæ, p. 109 (Java) (1873); *Sharpe (nec G. R. Gr.), Ibis*, 1879, p. 265 (Brunei); *Vorderm. N. T. N. I.* xlv. p. 400 (1885), xlvi. pp. 89, 236 (1886), li. p. 401 (1892).

? Macropygia sondaica, *Schleg. MS.*; *Sousa, Mus. Nac. Lisb.* Columbæ, p. 15 (1873) (Java).

Similar in every stage to *M. tenuirostris*, from which it differs in being much more rufous, and in having the bases of the inner webs of the quills much more broadly cinnamon; the difference in the much more rufous colour of the tail is very conspicuous: "iris reddish pearly, or red with yellow inner ring; bill horny or flesh-colour; feet red or purplish" (*Wallace*). Total length about 14·5 inches, wing 7, tail 7·5, bill 0·68, tarsus 0·98.

The *female*, marked so by Wallace, differs from the male in having the upper surface without amethyst, and more or less barred, especially on the nape and mantle, which are of a brighter cinnamon than in the female of *M. tenuirostris*; beneath cinnamon, with transverse dusky bars on the crop-region and breast.

Major Wardlaw Ramsay was somewhat in doubt as to what the plumage of the *adult female* is like, but it seemed to him that in the group to which *M. emiliana* belongs the sexes do not differ. Two fully adult specimens from Kina Balu, collected by Mr. Whitehead, and marked as male and female, are almost entirely alike.

A *young* female has the feathers of the lower throat black with rufous centres.

Hab. Java, Lombock, and N. Borneo.

The Kina-Balu bird has the cinnamon colour of the abdomen somewhat lighter than the Javan and Lombock ones, but otherwise it cannot be distinguished.

a. Ad. st.	Java.	Purchased.
b, c. ♂ ♀ ad. sk.	Java.	Sir E. Belcher [P.].
d, e. Imm. sk. et st.	Java.	India Museum.
f. ♂ ad. sk.	Java.	Turner Coll.
g. ♂ ad. sk.	Java (*Horsfield*).	India Museum [P.].

h, *i*. ♂ ad. et ♀ imm. sk.	Java (*Leyden Museum*).	Salvin-Godman Coll.
k, *l*. ♂ ad. et ♀ imm. sk.	E. Java.	Wallace Coll.
m. ♂ ad. sk.	Lombock.	Wallace Coll.
n, *o*. ♂ ad. sk.	Lombock (*Wallace*).	Tweeddale Coll.
p, *q*. ♂ ♀ ad. sk.	Lombock (*Wallace*).	Gould Coll.
r. ♂ ad. sk.	Lombock (*Wallace*).	Salvin-Godman Coll.
s, *t*. Skeletons.		Purchased.

11. Macropygia modiglianii.

? Columba amboinensis, *Rosenb.* (*nec Linn.*) *Versl. Eil. Nias*, p. 20 (18— ?).

Macropygia modiglianii, *Salvad. Ann. Mus. Civ. Gen.* (2) iv. p. 559, pl. viii. f. 2 (1887); *Modigl. Viaggio a Nias*, pp. 440, 686, t. xiv. (1890); *Wardl. Rams. Ibis*, 1890, p. 223; *Oust. Bull. Soc. Philom.* (8) iv. p. 118 (1892).

Adult male. Rufous cinnamon, back, wings, and tail darker; quills brown, rufous cinnamon on the edge of the inner webs; neck all round of an amethyst colour; the two outer pairs of rectrices towards the tip with a black bar: "bill brown; feet red; iris with an inner ring white, and with an outer one red" (*Modigliani*). Total length about 15·34 inches, wing 7·35, tail 7·89, bill 0·74, tarsus 0·86.

Female. Similar to the male, but somewhat smaller, and with the nape with slight golden and amethyst reflections; nape and mantle with black narrow bars; edges of the upper wing-coverts bright cinnamon.

Hab. Island of Nias.

"This is a darker and larger race of *M. emiliana*, intermediate between it and *M. tenuirostris*. Its coloration is also conspicuously brighter, especially in the amethystine of the upper surface, nape, and mantle, and the vinous tinge of the back and upper tail-coverts, which is much brighter on the latter. The legs and feet are much more massive." (*Wardlaw Ramsay.*)

It is with great doubt that I keep this species distinct from *M. emiliana*.

12. Macropygia phasianella.

Columba phasianella, *Temm. Tr. Linn. Soc.* xiii. p. 129 (1821) (Port Jakson, Australia); *Steph. Gen. Zool.* xiv. p. 200 (part.) (1826); *Desm. Dict. Sc. Nat.* xl. p. 357 (part.) (1826); *Wagl. Syst. Av.* Columba, sp. 36 (part.) (1827); *Less. Tr. d'Orn.* p. 473 (part.) (1831); ? *Selb. Nat. Libr., Pigeons*, p. 120 (part.), pl. 8 (1835).

Turtus amboinensis, part., *Less. Compl. de Buff., Ois.* viii. p. 67 (1837); *id. op. cit.* 2nd ed. p. 281 (1838).

Macropygia amboinensis, part., *G. R. Gr. List Gen. B.* p. 58 (1840); *id. Gen. B.* ii. p. 471, n. 1 (part.) (1844).

Macropygia phasianella, *Gould* (*nec Swainson*), *B. Austr.* v. pl. 75 (pt. xvii., 1844); *Rchnb. Syn. Av.* f. 1396 (nec f. 1394, quæ *M. tenuirostris*, neque f. 1395, quæ *M. amboinensis*) (1847); *Blyth*,

Cat. B. Mus. A. S. B. p. 234, n. 1421 (1849); *Rchnb. Vög. Neuholl.* p. 322, n. 438 (1850); *Bp. Consp. Av.* ii. p. 56 (S.E. Australia, New Guinea!) (1854); *id. Compt. Rend.* xxxix. p. 1111 (1854), xl. p. 219, n. 158 (1855); *id. Coup d'œil Ordre Pig.* pp. 27, 57, n. 158 (1855); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 38 (1856); *Rchnb. Tauben*, i. p. 86, t. 251. f. 1396 (1862), ? ii. p. 176 (Aru, Ké Isl.) (1862); *Gould, Handb. B. Austr.* ii. p. 148 (excl. syn.) (1865); *Wall. Ibis*, 1865, p. 389 (Australia); *id. J. f. O.* 1866, p. 282; *G. R. Gr. Hand-list*, ii. p. 237, n. 9293 (1870); *Wald. Ibis*, 1873, p. 315; *Schleg. Mus. P.-B.* Columbæ, p. 108 (1873); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 15 (1873); *Garrod, P. Z. S.* 1874, pp. 250, 256; *Gieb. Thes. Orn.* ii. p. 518 (syn. emend.) (1875); *Rams. P. Z. S.* 1876, p. 116; *id. Pr. Linn. Soc. N. S. W.* ii. p. 196 (1878); *Tweedd. Orn. Works*, p. 247 (1881); *Sclat. List Vert. An.* 8th ed. p. 451 (1883); *Sharpe, Voyage of H.M.S. 'Alert,'* p. 25 (1884); *Rams. Tab. List*, p. 18, n. 550 (1888); *Tristr. Cat. Coll. B.* p. 39 (1889); *North, Rec. Austr. Mus.* i. p. 117 (1891).

Turtur phasianellus, *Schleg. Dierent.* p. 206 (1864).

Adult male. General colour chestnut-brown, below cinnamon-rufous, deepening into chestnut on the abdomen and lower tail-coverts, paler on the forehead and throat; occiput and hind neck metallic amethyst with green reflections; a slightly vinous tinge on the crop-region, where also some narrow blackish bars can be noticed; quills brown; under wing-coverts, axillaries, and inner margins of the primaries rufous cinnamon; tail rufous brown; three outer pairs of rectrices brighter rufous, especially on the inner webs, and the outermost also on the outer web; all three have a broad black band extending towards the base of the inner web: "iris blue, with an outer circle of scarlet; orbital skin bluish lilac; feet red" (*Gould*). Total length about 17 inches, wing 7·5 to 7·9, tail 8·5 to 9, bill 0·68, tarsus 1.

Young? Upper parts chestnut-brown, upper part of the head much redder chestnut and also the edges of the upper wing-coverts; the sides of the head and neck rufous with brown bars; beneath minutely freckled with dark brown.

Whether the *adult female* is similar to the adult male or resembles the young bird, is still doubtful.

Hab. Australia, from Cape York to Victoria and S. Australia.

Wallace includes the Aru and Ké Islands among the localities inhabited by this species, but probably the specimens from those islands belong respectively to *M. doreya* and *M. keiensis*.

a. Imm. sk.		Linn. Soc. Coll. (Type of species.)
b. ♂ ad. sk.	Australia [N. S. Wales ?].	Lady Carrington [P.].
c. Imm. sk.	Australia.	Tweeddale Coll.
d, *e.* ♂ ad. sk.	Cape York (*Cockerell*).	Salvin-Godman Coll.
f. ♂ ad. sk.	Queensland.	Salvin-Godman Coll.
g. ♂ ad. sk.	S. Queensland.	Tweeddale Coll.
h. ♂ ad. sk.	Queensland (*Comer and Grant*).	Sydney Museum [P.].

i, *k*.	♂ ad. sk. et ♀ imm. st.	Port Molle, Queensland, Dec.	Voyage of H.M.S. 'Rattlesnake.'
l.	♀ ad. sk.	Port Molle, May.	Voyage of H.M.S. 'Alert.'
m.	Ad. sk.	N. S. Wales.	Gould Coll.

13. Macropygia amboinensis.

Turtur amboinensis, *Briss. Orn.* i. p. 127, t. ix. f. 3 (Amboina) (1760).

Columba amboinensis, *Linn. S. N.* i. p. 286, n. 38 (*ex Brisson*) (1766); *Gm. S. N.* ii. p. 790, n. 38 (1788); *Lath. Ind. Orn.* ii. p. 614, n. 74 (1790); *Bonn. Enc. Méth.* i. p. 255 (1790); *Vieill. N. D.* xxvi. p. 375 (1818); *Less. Compl. de Buff., Ois.* viii. p. 67 (1837) (part., Moluccas); *id. op. cit.* 2nd ed. p. 287 (1838).

Tourterelle d'Amboine, *Buff. Hist. Nat. Ois.* ii. p. 557 (1771).

Amboina Turtle, *Lath. Syn.* ii. 2, p. 665, n. 64 (1783).

Columba phasianella, juv., *Wagl. Syst. Av.* Columba, sp. 36 (1827); *Müll. Verhandl. Land- en Volkenk.* p. 109 (1839–44).

Macropygia amboinensis, *G. R. Gr. List Gen. B.* p. 58 (excl. syn.) (1840); *id. Gen. B.* ii. p. 471, n. 1 (1844); ? *Blyth, Cat. B. Mus. A. S. B.* p. 234, n. 1423 (1849); *Bp. Consp. Av.* ii. p. 56, n. 3 (part.) (1854); *id. Compt. Rend.* xxxix. p. 1111 (1854), xl. p. 219, n. 160 (1855); *id. Coup d'œil Ordre Pig.* pp. 27, 57, n. 160 (1855); *G. R. Gr. P. Z. S.* 1860, p. 361; *Rchb. Tauben*, i. p. 86, n. 192, t. 251. f. 1365 (1862); *Wall. P. Z. S.* 1863, p. 34 (Bouru); *Rosenb. N. T. N. I.* xxv. p. 250, n. 236 (1863); *id. J. f. O.* 1864, p. 133, n. 236; *Finsch, Neu-Guin.* p. 178 (1865); *Wall. Ibis*, 1865, p. 389, n. 84; *id. J. f. O.* 1866, p. 282; *G. R. Gr. Hand-list*, ii. p. 237, n. 9292 (excl. var.) (1870); *Wald. Ibis*, 1873, p. 315; *Gieb. Thes. Orn.* ii. p. 517 (part.) (1875); *Salvad. Ann. Mus. Civ. Gen.* viii. p. 383, n. 40 (Bouru), ix. p. 204, n. 63 (1876), xii. p. 431 (1878); *id. P. Z. S.* 1878, p. 82; *id. Voy. Challeng., Birds*, p. 63 (1881); *Tweedd. Orn. Works*, p. 247 (1881); *Salvad. Orn. Pap. e Mol.* iii. p. 132 (1882); *Blas. & Nehrk. Verh. z.-b. Ges. Wien*, 1882, p. 429 (Amboina); *Tristr. Cat. Coll. B.* p. 39 (part.) (1889); *Wardl. Rams. Ibis*, 1890, p. 231; ?*Heine & Rchnw. Nomencl. Mus. Hein. Orn.* p. 278 (1890) (Gilolo !, Celebes !); *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 60 (*Agg. Orn. Pap. e Mol.* p. 186) (1891).

Macropygia albiceps, *Temm. Mus. Lugd. fide Bp. Consp. Av.* ii. p. 56 (1854); *id. Compt. Rend.* xxxix. p. 1111 (1854); *id. Coup d'œil Ordre Pig.* p. 27 (1855); ?*G. R. Gr. List B. Trop. Isl.* p. 43 (New Caledonia !, *fide Bonaparte*) (1859); *id. Hand-list*, ii. p. 237, n. 9304 (1870).

Macropygia turtur, part., *Schleg. Mus. P.-B.* Columbæ, pp. 110, 113 (specim. from Amboyna, Ceram, Goram, and Bouru) (1873).

Macropygia buruensis, *Salvad. Ann. Mus. Civ. Gen.* xii. pp. 428, 431 (1878); *id. Orn. Pap. e Mol.* iii. p. 135 (1882).

Adult male. Head cinnamon-rufous, with a vinous tinge on the crown and occiput, paler on the forehead and cheeks; throat buffy white; upper surface brown-cinnamon, minutely mottled with brown; the feathers of the nape and mantle tipped with shining metallic greyish green, with amethyst reflections; beneath tawny buff, paler on breast, where many of the feathers are tipped with whitish, and deepening into rufous on the abdomen and under

tail-coverts, which are uniform with no bars; lower part of the fore neck and breast with narrow black bars, two or three on each feather; upper wing-coverts brown, edged with cinnamon; primary-coverts and primaries black, the latter scarcely edged with rufous on the inner web beneath; under wing-coverts and axillaries cinnamon; tail rufous brown, three outer pairs of rectrices with the basal part and tips more rufous, and with a subapical black band extending towards the base on the inner web: "iris white-grey, with an outer rim pink; bill black; feet red" (*Beccari*). Total length about 14·5 inches, wing 6·6 to 7·1, tail 8 to 9, bill 0·6, tarsus 0·85.

In one specimen from Amboyna, marked male, the under surface is of a nearly uniform cinnamon rufous brown, barred, but without white tips to the pectoral feathers.

Female. Upper part of the head bright cinnamon; nape and mantle buffy, barred with dark almost black metallic green; rest of the upper parts as in the male dark brown-chestnut, only the rump and upper tail-coverts brighter; beneath more rufous than in the male, and more boldly barred on the breast.

Young birds are like the female, but the feathers of the head are dark brown at the base and only tipped with chestnut; breast and throat-feathers blackish brown tipped with chestnut, giving a mottled appearance.

Hab. Amboyna, Ceram, and Bouru.

a. ♂ ad. sk.	Indian Archipelago.	Capt. Chambers [P.].
b. ♂ ad. sk.	Amboyna.	Wallace Coll.
c. ♂ ad. sk.	Amboyna (*Wallace*).	Seebohm Coll.
d. Imm. sk.	Amboyna (*Wallace*).	Gould Coll.
e, *f*. ♂ ♀ ad. sk.	Amboyna.	'*Challenger*' Exped.
g. ♀ ad. sk.	N. Ceram.	Wallace Coll.
h. ♂ ad. sk.	N. Ceram (*Wallace*).	Gould Coll.
i. ♂ juv. sk.	E. Ceram.	Wallace Coll.
k, *l*. ♂ ad. et ♂ juv. sk.	Bouru.	Wallace Coll.
m. ♂ ad. sk.	Bouru (*Wallace*).	Tweeddale Coll.
n. ♂ ad. sk.	Cajeli, Bouru, Nov.	H. O. Forbes, Esq. [C.].
o. Juv. sk.	Lake Wakolo, Bouru, Nov.	H. O. Forbes, Esq. [C.].
p. ♂ ad. sk.	[New Guinea.]	Salvin-Godman Coll.
q. ♂ ad. st.	Moluccas.	Purchased.

14. **Macropygia keiensis.**

Macropygia, sp., *Wall. Ann. & Mag. N. H.* (2) xx. p. 473 (part.) (1857).

Macropygia phasianella, part., *G. R. Gr.* (*nec Temm.*) *P. Z. S.* 1858, pp. 187, 196 (Ké Isl.); *id. Cat. B. New Guin.* pp. 48, 61 (part.) (1859); *id. P. Z. S.* 1861, p. 437 (part.); *Rchnb. Tauben*, ii. p. 176 (part.) (1862); *Rosenb. N. T. N. I.* xxv. p. 249, n. 235 (part.) (1863); *id. J. f. O.* 1864, p. 133, n. 235 (part.); *Finsch, Neu-Guin.* p. 178 (part.) (1865); *Wall. Ibis*, 1865, p. 389, n. 81 (part.); *id. J. f. O.* 1866, p. 282, n. 81 (part.); *Rosenb.* (*nec Temm.*) *Reis naar Zuidoostereil.* p. 81 (1867).

Macropygia turtur, part., *Schleg. Mus. P.-B.* Columbæ, pp. 110, 113, 114 (specim. from Ké Isl.) (1873); *Rosenb. Malay. Archip.* p. 372 (1878–79).

Macropygia keyensis, *Salvad. Ann. Mus. Civ. Gen.* ix. p. 204, n. 64 (1876) (*ex Schlegel*); *id. P. Z. S.* 1878, p. 89; *id. Ann. Mus. Civ. Gen.* xii. p. 432 (1878), xiv. p. 662 (1879); *id. Voy. Chall., Birds*, p. 71 (1881); *id. Orn. Pap. e Mol.* iii. p. 146 (1882); *Wardl. Rams. Ibis*, 1890, p. 236; *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 61 (*Agg. Orn. Pap. e Mol.* p. 187) (1891).

Adult male. Head rufous vinous; forehead and cheeks pale; top of the head and occiput with a greyish tinge; nape with metallic green and amethyst reflections and greyish tinge; remainder of the upper parts brown-cinnamon, minutely mottled with brown; throat rufous white; lower throat and upper breast vinous, with dark bands, which have green reflections; lower breast and abdomen pale whitish buff with black bars, and changing into rufous cinnamon on the abdomen and lower tail-coverts; the longer ones of the latter unbarred; under wing-coverts also uniform rufous cinnamon; quills brown, with narrow rufous edges both on the inner and outer webs; tail above brown, below more greyish; the three outer pairs of rectrices partly bright rufous, with the usual dark band: "bill black; feet red; eyes hazel" (*Moseley*). Total length about 15 inches, wing 7, tail 7·7, bill 0·7, tarsus 0·8.

Young female. Head brown, the feathers tipped with rufous; nape with rufous and brown bars; upper parts brown with rufous edges; lower parts pale rufous, darker on the abdomen and under tail-coverts, with brown bars especially on the breast, and brown spots on the centre of the feathers of the throat.

Hab. Ké Islands.

a. ♂ ad. sk.	Ké Dulau.	'Challenger' Expedition. (Type of the male.)
b. ♀ ad.? sk.	Ké Islands (*A. R. Wallace*).	Gould Coll.

15. Macropygia albicapilla.

Macropygia albicapilla, *Temm. Mus. Lugd.*; *Bp. Consp. Av.* ii. p. 57 (1854) (Celebes); *id. Compt. Rend.* xxxix. p. 1111 (1854); *id. Coup d'œil Ordre Pig.* p. 27 (1855); *Rchnb. Tauben*, i. p. 87 (1862); *Wall. P. Z. S.* 1862, pp. 335, 345 (Sula Islands); *id. Ibis*, 1865, p. 389; *id. J. f. O.* 1866, p. 282; *Wald. Tr. Zool. Soc.* viii. p. 85 (1872); *Salvad. Ann. Mus. Civ. Gen.* vii. p. 672 (1875); *Meyer, Ibis*, 1879, p. 137; *Tweedd. Orn. Works*, p. 185 (1881); *Salvad. Orn. Pap. e Mol.* iii. p. 134 (1882); *Guillem. P. Z. S.* 1885, p. 558 (part.); *Blas. Zeitschr. ges. Orn.* iii. p. 133 (part.) (1886); *Wardl. Rams. Ibis*, 1890, p. 232.

Macropygia amboinensis, var. albicapilla, *G. R. Gr. Hand-list*, ii. p. 237, n. 9292 (part.) (1870); *Brüggem. Abh. nat. Ver. Brem.* v. p. 86 (part.) (1876); *Lenz, J. f. O.* 1877, p. 379.

Macropygia turtur, part., *Schleg. Mus. P.-B.* Columbæ, pp. 111, 112 (Celebes and Soula-bessie) (1873); *Tristr. Cat. Coll. B.* p. 39 (1889).

Macropygia amboinensis, part., *Gieb. Thes. Orn.* ii. p. 517 (1875); ?*Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 278 (Celebes).

Adult male. Similar to the male of *M. amboinensis*, but much smaller, head much paler, with the forehead whitish buff, and with the hind part greyish brown; nape and mantle more golden green; vinous tinge of the breast sharply defined above from the rufous throat; under tail-coverts paler rufous and minutely mottled with brown; primaries, as in *M. amboinensis*, scarcely edged with rufous on the inner web; tail as in the allied species, only somewhat darker: "bill and feet dusky purple; iris pinky pearl colour" (*Wallace*). Total length about 14 inches, wing 6·1 to 6·6, tail 7·6 to 8, bill 0·55, tarsus 0·85.

Female. Similar to that of *M. amboinensis*, but darker, with the cheeks more rufous; beneath rufous, almost unbarred; under tail-coverts faintly mottled with brown.

Young. Resembles more or less the female.

Hab. Celebes, Sula Islands, and Togian Islands.

Birds from Sula Islands are a trifle smaller; wing about 6 inches.

a. Ad. sk.	Celebes.	Wallace Coll.
b. ♀ ad. sk.	Celebes.	Salvin-Godman Coll.
c. Imm. sk.	N. Celebes.	Tweeddale Coll.
d, e. ♂ ad. et ♂ juv. sk.	Tondano, N. Celebes.	Wallace Coll.
f. ♂ ad. sk.	Menado, N. Celebes.	Tweeddale Coll.
g. ♂ juv. sk.	Makassar.	Wallace Coll.
h. Imm. sk.	No locality.	Gould Coll.
i, k. ♂ ad. et ♀ imm. sk.	Sula Is. (*Wallace*).	Gould Coll.
l. ♀ imm. sk.	Sula Is.	Wallace Coll.
m. ♀ imm. sk.	Sula Is. (*Wallace*).	Tweeddale Coll.
n. Skeleton.	Menado, N. Celebes.	Dr. A. B. Meyer [C.].

16. **Macropygia sanghirensis.**

Macropygia turtur, part., *Schleg. Mus. P.-B.* Columbæ, p. 111 (Sanghir and Siao) (1873).

Macropygia, sp., *Salvad. Ann. Mus. Civ. Gen.* ix. p. 62 (1876); *id. Atti R. Ac. Sc. Tor.* xiii. p. 1186 (note) (1878).

Macropygia sanghirensis, *Salvad. Atti R. Ac. Sc. Tor.* xiii. p. 1185 (1878); *Meyer, Sitzb. u. Abh. Ges. Isis*, 1884, Abh. i. p. 6; *Blas. Braunschw. Anz.* 1888, pp. 9, 86; *id. Russ's Isis*, 1888, p. 78; *id. Ornis*, 1888, p. 619, pl. iii.; *Wardl. Rams. Ibis*, 1890, p. 233.

Adult male. Similar to that of *M. albicapilla*, but larger, and easily distinguished by its darker colour, almost purplish brown above, the head more cinereous on the hind part; bright metallic amethyst on the mantle, with bronzy green reflections, faintly continued across the breast; beneath more boldly barred; throat greyish buff, as in *M. albicapilla*, in sharp contrast to the barred breast; tail very dark chestnut. Rest as in *M. albicapilla*. Total length about 15 inches, wing 7, tail 8, bill 0·58, tarsus 0·95.

Female. Similar to that of *M. albicapilla*, but larger, much darker chestnut above, and barred all over beneath.

Hab. Sanghir Islands.

a–d. ♂ ♀ ad. ak. Sanghir Is. (*A. B. Meyer*). Tweeddale Coll.

17. Macropygia maforensis.

Macropygia turtur, part., *Schleg. Mus. P.-B.* Columbæ, p. 110 (specim. from Mafor, p. 115) (1873).

Macropygia doreya, *Rosenb.* (*nec Bp.*) *Reist. naar Geelvinkb.* p. 36 (Mafor) (1875).

Macropygia griseinucha, part., *Salvad. Ann. Mus. Civ. Gen.* ix. p. 204, n. 66 (specim. from Mafor) (1876).

Macropygia maforensis, *Salvad. Ann. Mus. Civ. Gen.* xii. pp. 429, 432 (1878); *id. Orn. Pap. e Mol.* iii. p. 148 (1882); *Wardl. Rams. Ibis*, 1890, p. 236; *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 62 (*Ayg. Orn. Pap. e Mol.* p. 188) (1891).

Adult male. Forehead whitish, crown, occiput, and nape conspicuously grey; nape and upper mantle with green reflections; sides of the head rufous grey; throat whitish; upper breast rufous vinaceous, on the sides with amethystine reflections; lower breast, abdomen, and under tail-coverts fulvous ochreous, the latter darker and uniform; breast with dark brown bars, evanescent on the abdomen; back brown-chestnut, the edges of the feathers brighter; quills brown; tail above brown-chestnut, with a slight greyish tinge, the three central pairs uniform, three outer pairs at the base, especially of the inner web, bright rufous, and with the usual dark subapical bar: "bill brown, feet red" (*Meyer*). Total length about 14·5 inches, wing 6·5, tail 7, bill 0·75, tarsus 0·85.

Female. Differs from the male in having the upper part of the head rufous cinnamon, nape and upper mantle with brown and fulvous ochraceous bars, the feathers of the rump and upper wing-coverts edged with cinnamon; throat whitish; the upper breast with the edges of the feathers ochreous rufous, and the abdomen ochreous fulvous, minutely mottled with grey.

Hab. Mafoor, Geelvink Bay.

18. Macropygia doreya.

Turtur amboinensis, part., *Less. Compl. de Buff., Ois.* viii. p. 67 (1837); *id. op. cit.* 2nd ed. p. 287 (specim. from New Guinea) (1838).

Macropygia doreya, *Bp. Consp. Av.* ii. p. 57 (New Guinea) (1854) (type examined); *id. Compt. Rend.* xxxix. p. 1111 (1854), xl. p. 219, n. 162 (1855); *id. Coup. d'œil Ordre Pig.* pp. 28, 52, n. 162 (1855); *Sclat. Journ. Pr. Linn. Soc.* ii. p. 168, n. 148 (1858); *G. R. Gr. P. Z. S.* 1858, p. 196, 1859, p. 159; *id. Cat. B. New Guin.* pp. 48, 61 (1859); *id. P. Z. S.* 1861, p. 437; *Rchnb. Tauben*, i. p. 87 (1862), ii. p. 176 (1862); *Rosenb. N. T. N. I.* xxv. p. 250, n. 237 (1863); *id. J. f. O.* 1864, p. 133, n. 237; *Finsch, Neu-Guin.* p. 178 (1865); *Wall. Ibis*, 1865, p. 390; *id. J. f. O.* 1866, p. 282; *G. R. Gr. Hand-list*, ii. p. 237, n. 9295 (1870); *Gieb. Thes. Orn.* ii. p. 517 (1875); *Salvad. Ann. Mus. Civ. Gen.*

ix. p. 204, n. 65 (1876), x. p. 166 (1877), xii. p. 431 (1878); *id. P. Z. S.* 1878, p. 99; ? *Rams. Pr. Linn. Soc. N. S. W.* iii. p. 103 (Katau) (1878); *D'Alb. & Salvad. Ann. Mus. Civ. Gen.* xiv. p. 121 (1879); *D'Alb. Nuova Guin.* pp. 582, 588 (1880); *Salvad. Voy. Chall., Birds*, p. 83 (1881); *id. Orn. Pap. e Mol.* iii. pp. 141, 561 (1882); *Nehrk. J. f. O.* 1885, p. 34 (Waigiou); *Tristr. Cat. Coll. B.* p. 39 (1889); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 278 (1890); *Wardl. Rams. Ibis*, 1890, p. 234; *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 61 (*Agg. Orn. Pap. e Mol.* p. 187) (1891).

Macropygia sp., *Wall. Ann. & Mag. N. H.* (2) x. p. 473 (1857).

Macropygia phasianella, part., *G. R. Gr.* (*nec. Temm.*) *P. Z. S.* 1858, pp. 187, 196 (Aru Is.); *id. Cat. B. New Guin.* pp. 48, 61 (1859); *id. P. Z. S.* 1861, p. 437; *Rchnb. Tauben*, ii. p. 176 (1862); *Rosenb. N. T. N. I.* xxv. p. 249, n. 235 (1863); *id. J. f. O.* 1864, p. 133, n. 235; *Finsch, Neu-Guin.* p. 178 (part.) (1865); *Wall. Ibis*, 1865, p. 389, n. 81 (part.); *id. J. f. O.* 1866, p. 282 (part.); *Rosenb. Reist. naar Geelvinkb.* p. 117 (1875).

Macropygia turtur, part., *Schleg. Mus. P.-B.* Columbæ, pp. 110, 113 and follow. (specim. from Aru, Guebeh, Salawatti, Mysol, New Guinea, Soek) (1873); *Cab. & Rchnw. J. f. O.* 1876, p. 325 (part.); *Rosenb. Malay. Archip.* pp. 372, 561 (1879).

Macropygia griseinucha, part., *Salvad. Ann. Mus. Civ. Gen.* ix. p. 204, n. 66 (Jobi, Misori) (1876).

? Macropygia batchianensis, *Hein. & Rchnw.* (*nec Wall.*) *Nomencl. Mus. Hein. Orn.* p. 278 (Mysol) (1890).

Adult male. Upper parts chestnut-brown; head vinous, top of the head and occiput tinged with greyish; front part of the head and throat pale rufous; nape and upper mantle bright metallic green, more or less with purple reflections; beneath the throat and breast rich vinaceous with purple reflections, each feather with two dark blackish cross-bars, blending into tawny buff on the abdomen and deepening into cinnamon on the vent and under tail-coverts; under wing-coverts, axillaries, and tibial feathers chestnut; three outer tail-feathers cinnamon with a subapical blackish band: bill dark; feet red. Total length about 15 inches, wing 6·5, tail 7·4, bill 0·6, tarsus 0·85.

Male and *female*, sexed by Beccari, alike in the Museum of Turin.

Adult female (Aru). General colour above chestnut-brown; head reddish chestnut; upper surface brown; feathers tipped with chestnut, broadly so on wing-coverts; the nape and mantle paler, barred with dark metallic green and rufous; beneath rufous, very faintly barred and freckled, especially on the breast, deepening to cinnamon on the vent, flanks, and under tail-coverts.

Young (Aru). Similar to the female, but more mottled and freckled above with rufous and brown; the brown bars on the nape and mantle have no metallic green lustre; upper wing-coverts broadly edged with cinnamon, quills more narrowly so; beneath the breast-feathers are brown, edged with cinnamon.

Hab. New Guinea, with the surrounding North-western Islands—Waigiou, Guebeh, Batanta, Salawatty, Mysol, Mysori, and Jobi, and also Aru Islands.

a. ♂ ad. sk.	New Guinea.	Wallace Coll.
b. ♀ ad. sk.	New Guinea.	Tweeddale Coll.
c. ♂ imm. sk.	Dorey (*Wallace*).	Gould Coll.
d. ♀ ad. sk.	Has, N.W. New Guinea, Feb.	Salvin-Godman Coll.
e, *f*. ♀ ad. et ♂ imm. sk.	Amberbaki, N.W. New Guinea, May.	Salvin-Godman Coll.
g, *h*. ♂ ♀ ad. sk.	Mysol (*Wallace*).	Gould Coll.
i. ♀ ad. sk.	Mysol (*Wallace*).	Tweeddale Coll.
k, *l*. ♂ ♀ ad. sk.	Aru Is.	Purchased.
m. ♀ ad. sk.	Aru Is.	Wallace Coll.
n. ♀ imm. sk.	Wokan, Aru Is.	'Challenger' Expedition.

19. **Macropygia cinereiceps.**

? Macropygia amboinensis, part., *Rams. Pr. Linn. Soc. N. S. W.* iii. p. 293 (1878); *Salvad. Ibis*, 1879, p. 327.
Macropygia doreya, *Sharpe, Pr. Linn. Soc., Zool.* xvi. p. 446 (Taburi) (1882); ?*Rams. Pr. Linn. Soc. N. S. W.* viii. p. 27 (egg) (1883).
Macropygia cinereiceps, *Tristr. Ibis*, 1889, p. 558; *Wardl. Rams. Ibis*, 1890, p. 237; *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 62 (*Agg. Orn. Pap. e Mol.* p. 188) (1891).

Similar to *M. doreya*, but the *male* with the crown and nape deep slate-colour or grey, the latter, as in the allied species, with metallic green and amethyst reflections. The bars of the breast are less strongly marked.

Hab. D'Entrecasteaux Islands and South-eastern New Guinea.

a. ♂ ad. sk.	Sogeri, S.E. New Guinea, Dec.	H. O. Forbes, Esq. [C.].
b, *c*, *d*. ♂ ♀ ad. sk.	Astrolabe Mountains.	A. Goldie, Esq. [C.].

20. **Macropygia griseinucha.**

Macropygia griseinucha, *Salvad. Ann. Mus. Civ. Gen.* ix. p. 204, n. 66 (part., Miosnom only) (1876), xii. pp. 430, 431 (1878); *id. Orn. Pap. e Mol.* iii. p. 139 (1882); *Wardl. Rams. Ibis*, 1890, p. 238; *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 61 (*Agg. Orn. Pap. e Mol.* p. 187) (1891).

Adult male. Forehead whitish, crown, occiput, and nape cinereous, the latter and the upper mantle with metallic green and amethyst reflections; back, rump, wings, and tail brown-chestnut, throat whitish; sides of the head vinous; breast greyish vinous, the feathers edged with shining amethyst, and in some specimens with obsolete dark bars; abdomen rufous isabelline; under tail-coverts pale cinnamon; under wing-coverts cinnamon; quills brown; tail as usually in the allied species; bill brown; feet red. Total length about 13·5 inches, wing 6·80, tail 2·1, bill 0·66, tarsus 0·8.

Hab. Miosnom, Geelvink Bay.

21. **Macropygia batchianensis.**

Macropygia amboinensis, part., *Bp. Consp. Av.* ii. p. 56 (Ternate) (1854); *Rosenb. N. T. N. I.* xxv. p. 250, n. 236 (part.) (1863);

id. J. f. O. 1864, p. 133, n. 236; *Wall. Ibis*, 1865, p. 399 (part.); *Finsch, Neu-Guin.* p. 178 (part.) (1865); *Rosenb.* (*nec Linn.*) *Reist. naar Geelvinkb.* p. 8 (1875); *Gieb. Thes. Orn.* ii. p. 517 (part.) (1875); *Tristr. Cat. Coll. B.* p. 39 (part.) (1889); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 278 (Gilolo) (1890).

Macropygia albicapilla, var., *G. R. Gr. P. Z. S.* 1860, p. 361 (Batchian and Ternate).

Macropygia amboinensis, var. batchianensis, *Wall. Ibis*, 1865, p. 389; *id. J. f. O.* 1866, p. 282; *G. R. Gr. Hand-list*, ii. p. 237, n. 9292 (1870).

Macropygia turtur, part., *Schleg. Mus. P.-B.* Columbæ, p. 110 (p. 113, specim. from Halmahera, Morty, Ternate, Batchian, and Kajoa) (1873); *Rosenb. Malay. Archip.* p. 407 (1878–79).

Macropygia batchianensis, *Salvad. Ann. Mus. Civ. Gen.* ix. p. 204, n. 67 (1876), xii. p. 431 (1878); *id. Orn. Pap. e Mol.* iii. p. 136 (1882); *Pleske, Bull. Acad. Pétersb.* xxix. p. 535 (1884); *Guillem. P. Z. S.* 1885, p. 576; *Wardl. Rams. Ibis*, 1890, p. 237; ? *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 278 (Mysol ?) (1890); *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 60 (*Agg. Orn. Pap. e Mol.* p. 186) (1891).

Adult male. Head and throat rufous, occiput vinaceous, nape with green and amethyst reflections; rest of the upper parts brown-cinnamon, scarcely mottled with brown; lower throat and upper breast vinous, in some specimens with narrow, almost obsolete, dark bars; lower breast and abdomen pale rufous, under tail-coverts rufous cinnamon; wings dark chestnut, with paler or brighter edges on the upper wing-coverts; under wing-coverts cinnamon; quills uniform underneath, or with a very narrow rufous inner edge; tail as in the allied species: "bill brown; feet red; irides red, with a blue inner ring" (*Beccari*). Total length about 14·5 inches, wing 6·4 to 6·8, tail 8·5, bill 0·65, tarsus 0·9.

Female. Is of the general rufous-brown type of the females of this group.

Young birds the same, more or less mottled according to the age.

Hab. Batchian and the Halmahera group—Halmahera, Ternate, Morty, Kajoa.

a. ♂ ad. sk.	Batchian.	Wallace Coll. (Type of species.)
b, c. ♂ ad. sk.	Batchian.	Wallace Coll.
d. ♀ ad. sk.	Batchian (*Wallace*).	Salvin-Godman Coll.
e. ♂ ad. sk.	Ternate.	Wallace Coll.
f. ♂ ad. sk.	[Menado.]	Tweeddale Coll.

22. Macropygia goldiei.

Macropygia doreya, part., *Sharpe* (*nec Bp.*), *Journ. Linn. Soc., Zool.* xvi. p. 446 (Taburi District) (1882).

Adult male. Similar to the male of *M. doreya*, from which it differs in having the bars on the breast obsolete or entirely wanting, and the cheeks more rufous; it is intermediate between *M. batchianensis* and *M. carteretia*, but differs from the former in being more

rufous on the forehead and throat, and from the latter in having a much deeper colouring on the underparts. Size of *M. doreya*.

Female. Scarcely different from that of *M. doreya*.

Hab. S.E. New Guinea.

a. ♂ ad. sk.	Vicinity of Port Moresby, S.E. New Guinea (*A. Goldie*).	Salvin-Godman Coll.	Types of species.
b, c. ♂ ♀ ad. sk.	S.E. New Guinea (*A. Goldie*).	Tweeddale Coll.	Types of species.
d. ♀ ad. sk.	S.E. New Guinea.	Sharpe Coll.	
e, f. ♂ ♀ ad. sk.	S.E. New Guinea.	Salvin-Godman Coll.	

23. Macropygia carteretia.

Macropygia carteretia, *Bp. Consp. Av.* ii. p. 57 (New Ireland) (1854) (types examined); *id. Compt. Rend.* xxxix. p. 1112 (1854), xl. p. 219, n. 163 (1855); *id. Coup d'œil Ordre Pig.* pp. 28, 57, n. 163 (1855); *G. R. Gr. Cat. B. Trop. Isl.* p. 43 (1859); *Rchnb. Tauben*, i. p. 87 (1862); *Wall. Ibis*, 1865, p. 390; *id. J. f. O.* 1866, p. 282; *G. R. Gr. Hand-list*, ii. p. 237, n. 9301 (1870); *Gieb. Thes. Orn.* ii. p. 517 (1875); *Salvad. Ann. Mus. Civ. Gen.* ix. p. 204, n. 69 (1876); *Sclat. P. Z. S.* 1877, p. 111, 1879, p. 447 (New Britain); *Finsch, Ibis*, 1881, p. 539; *Salvad. Orn. Pap. e Mol.* iii. p. 138 (1882); *Tristr. Ibis*, 1889, p. 558; *id. Cat. Coll. B.* p. 39 (1889); *Wardl. Rams. Ibis*, 1890, p. 238; *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 60 (*Agg. Orn. Pap. e Mol.* p. 186) (1891).

Macropygia cateretia (*sic*), *Rams. Pr. Linn. Soc. N. S. W.* i. p. 374 (1876).

Macropygia turtur, part., *Cab. & Rchnw. J. f. O.* 1876, p. 325 (New Hanover).

Macropygia amboinensis, part., *Rams. Pr. Linn. Soc. N. S. W.* iii. p. 293 (1878).

? Macropygia doreya, *Finsch* (*nec Bp.*), *P. Z. S.* 1879, p. 13 (Duke of York Island).

? Macropygia nigrirostris, *De Vis* (*nec Salvad.*), *Ann. Rep. Brit. New Guin.* p. 62 (St. Aignan, Rossel Island) (1890); *id. Colon. Papers*, n. 103, p. 116 (1890); *id. Ibis*, 1891, p. 41.

Adult male. Head rufous vinous, paling on the forehead, cheeks, and throat, which are of a buff-white; nape vinaceous, with the edges of the feathers metallic green or amethyst; remainder of the upper parts brown-chestnut; beneath pale buff, breast clear vinaceous, with the edges of the feathers almost whitish; abdomen and under tail-coverts of a pale rufous; under wing-coverts and axillaries cinnamon; tail as in the allied species: bill dusky; feet red; "irides with an outer ring red, and the inner one blue" (*Huesker*). Total length about 15·5 inches, wing 7·1, tail 8·5 to 9, bill 0·65, tarsus 0·85.

Female. Similar to that of the allied species, and differing from the male in having the whole of the upper part of the head cinnamon, the nape with brown and rufous bars, with a slight green lustre on the brown bars, and the underparts much more rufous.

Hab. New Britain, New Ireland, Duke of York Island, New Hanover, and S.E. New Guinea.

a, *b*. ♂ ♀ ad. sk.	Duke of York Is., Oct. (*Rev. G. Brown*).	Tweeddale Coll.
c. ♀ ad. sk.	Duke of York Is., Feb.	Rev. G. Brown [C.].
d. ♂ ad. sk.	Makada, Duke of York Is.	Rev. G. Brown [C.].
e. ♂ ad. sk.	Duke of York Is.	Hr. J. Kleinschmidt [C.].
f. ♀ ad. sk.	New Britain, Nov.	Hr. J. Kleinschmidt [C.].
g. ♀ ad. sk.	New Britain, May.	Rev. G. Brown [C.].
h. ♀ juv. sk.	New Ireland, March.	Hr. J. Kleinschmidt [C.].

24. Macropygia ruficeps.

? Columba amboinensis, *Raffl.* (*nec Linn.*) *Tr. Linn. Soc.* xiii. p. 318 (1822) (Sumatra).

Columba ruficeps, *Temm. Pl. Col.* 561 (livr. 95, 1835) (Java, Sumatra); *Less. Compl. de Buff., Ois.* viii. p. 70 (1837); *id. op. cit.* 2nd ed. p. 288 (1838); *Knip & Prév. Pig.* ii. pl. 36 (1838–43).

Macropygia ruficeps, *G. R. Gr. Gen. B.* ii. p. 471, n. 5 (1844); *Rchnb. Syn. Av.* ff. 1397–98 (1847); *Bp. Consp. Av.* ii. p. 58 (1854); *id. Compt. Rend.* xxxix. p. 1111 (1854), xl. p. 219, n. 165 (1855); *id. Coup d'œil Ordre Pig.* pp. 27, 57, n. 165 (1855); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 39 (1856); *Rchnb. Tauben*, i. p. 88, t. 251. ff. 1397–98 (1862); *Wall. Ibis*, 1865, p. 391; *id. J. f. O.* 1866, p. 282; *G. R. Gr. Hand-list*, ii. p. 237, n. 9297 (1870); *Stoliczka, J. A. S. B.* xxxix. p. 331 (1870) (Wellesley Province); *Schleg. Mus. P.-B.* Columbæ, p. 110 (1873); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 15 (1873); *Salvad. Cat. Ucc. Born.* p. 298 (1874); *Gieb. Thes. Orn.* ii. p. 518 (1875); *Blyth, B. of Burm.* p. 146 (1873) (Mergui, Wellesley Province); *Hume, Str. Feath.* vi. p. 420 (1878); *Salvad. Ann. Mus. Civ. Gen.* xiv. p. 248 (1879); *Nichols. Ibis*, 1881, p. 135 (Java); *Vorderm. N. T. N. I.* xlv. p. 402 (1885), xlvi. pp. 89, 236 (1886); *Büttik. Not. Leyd. Mus.* ix. p. 76 (1886) (Sumatra); *Pelz. & Lor. Ann. Naturh. Hofmus.* iii. p. 84 (1888); *Vorderm. N. T. N. I.* xlix. p. 413 (1889); *Everett, Journ. Str. Br. R. As. Soc.* 1889, p. 193; *Tristr. Cat. Coll. B.* p. 39 (1889); *Sharpe, Ibis*, 1890, p. 137 (Borneo); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 278 (1890); *Wardl. Rams. Ibis*, 1890, p. 225; *Vorderm. N. T. N. I.* li. p. 246 (1891); *Salvad. Ann. Mus. Civ. Gen.* (2) xii. p. 74 (1891); *Hartert, Kat. Vogelsamml.* p. 185 (1891); *Vorderm. N. T. N. I.* li. p. 401 (1892).

"Columba nuchalis, *Wagl.*" (errore), *Rchnb. Syn. Av.* (in syn. *M. ruficipitis*, ff. 1397–98) (1847).

? Macropygia amboinensis, *Blyth, Cat. B. Mus. A. S. B.* p. 234, n. 1423 (part., Tenasserim) (1849).

Turtur ruficeps, *Schleg. De Dierent.* p. 206 (1864).

Macropygia assimilis, *Hume, Str. Feath.* ii. p. 441 (1874) (Tenasserim); *Wald. in Blyth B. of Burm.* p. 146 (1875); *Wardl. Rams. Ibis*, 1877, p. 468 (Karen Hills); *Hume & Davis. Str. Feath.* vi. p. 420 (1878); *Hume, op. cit.* viii. pp. 68, 110 (1879); *Oates, B. Brit. Burm.* ii. p. 296 (1883).

Adult male. General colour above dark chestnut, almost brown on the back; head conspicuously paler, pale cinnamon; nape and mantle obsoletely barred with dusky, and with the edges of the feathers metallic green, with amethyst reflections; beneath pale cinnamon, whitish on the throat, deeper on the sides and under tail-coverts; pectoral feathers more or less broadly tipped with whitish buff; primaries brown, broadly edged with cinnamon on the inner web beneath; upper wing-coverts edged with cinnamon; under wing-coverts cinnamon; two central pairs of tail-feathers uniform brown chestnut; the four outer pairs more or less rufous, with a black band, extending towards the base on the inner web: "iris ashy white; bill reddish horn-colour; feet coral-red" (*Wallace*). Total length about 12 inches, wing 5·5 to 5·8, tail 7, bill 0·5, tarsus 0·7.

Female. Upper parts brown; upper part of the head and tips of the wing-coverts rufous-cinnamon; nape with rufous and brown bars; rump and upper tail-coverts narrowly tipped with rufous; beneath cinnamon rufous; feathers of the throat and breast blackish brown, with a rufous spot at the tips, giving the breast the appearance of being black-spotted.

Immature males have the breast black-spotted as in the female.

Javan birds are smaller than the Tenasserim and Burmah ones (*M. assimilis*, Hume). Wing 6·1 inches, tail 6·8 to 7·1. Bornean birds are even smaller than the Javan birds.

Hab. Java, Sumatra, Borneo, Malay Peninsula, Tenasserim, and Burmah.

a, b. ♂ ad. sk.	W. Java.	Wallace Coll.
c. ♂ ad. sk.	W. Java (*Wallace*).	Tweeddale Coll.
d. ♂ juv. sk.	Java, Oct.	Zool. Society's Coll.
e. ♂ juv. st.	Java.	Massena Coll.
f. Juv. st.	Java.	Purchased.
g, h, i. ♀ ad. et imm. ♂ sk.	Sumatra (*Carl Bock*).	Tweeddale Coll.
k. ♂ imm. sk.	Sumatra (*Carl Bock*).	Salvin-Godman Coll.
l, m. ♂ ad. sk.	Kina Balu, N. Borneo.	A. H. Everett, Esq. [P.].
n–q. ♂ ♀ ad. sk.	Dulit, 3000–5000 ft., June.	C. Hose, Esq. [C.].
r–tc. ♀ ad. et ♂ imm. sk.	Salangore, April (*W. Davison*).	Hume Coll.
x–a'. ♂ ad. sk.	Mooleyit, Feb. (*W. Davison*).	Hume Coll.
b'. ♀ ad. sk.	Kollidoo, Jan.	Hume Coll.
c'. ♀ ad. sk.	Tonghoo.	E. W. Oates, Esq. [C.].
d'. ♀ ad. sk.	Tonghoo, April (*R. G. W. R.*).	Tweeddale Coll.
e', f', g'. ♀ ad. sk.	Karen Hills, Oct., Jan. (*R. G. W. R.*).	Tweeddale Coll.

25. Macropygia nigrirostris.

Macropygia nigrirostris, *Salvad. Ann. Mus. Civ. Gen.* vii. p. 972 (♂) (1875), ix. p. 204, n. 68 (1876); *Sclat. P. Z. S.* 1877, p. 111;

Salvad. Atti R. Ac. Sc. Tor. xiii. p. 315 (♀) (1878); *Sclat. P. Z. S.* 1879, p. 447; *Salvad. Ann. Mus. Civ. Gen.* xii. p. 432 (1878); *Finsch, P. Z. S.* 1879, p. 13; *D'Alb. & Salvad. Ann. Mus. Civ. Gen.* xiv. p. 122 (1879); *Rams. Pr. Linn. Soc. N. S. W.* iv. p. 314 (1879); *D'Alb. Nuova Guin.* p. 588 (1880); *Finsch, Ibis*, 1881, p. 539; *Salvad. Orn. Pap. e Mol.* iii. pp. 149, 561 (New Britain) (1882); *Finsch, Vög. d. Südsee*, p. 19 (New Britain) (1884); *Guillem. P. Z. S.* 1885, p. 662; *Wardl. Rams. Ibis*, 1890, p. 230; *Meyer, Ibis*, 1890, p. 423; *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 278 (1890); *Salvad. Ann. Mus. Civ. Gen.* (2) x. p. 825 (1891); *id. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 63 (*Agg. Orn. Pap. e Mol.* p. 189) (1891).

Adult male. Above chestnut, darker and with a purple tinge on the crown and occiput; forehead, sides of the head, neck, and underparts uniform cinnamon; rump and upper tail-coverts chestnut, with black bars; upper wing-coverts chestnut-brown, with rufous-chestnut edges; quills black; under wing-coverts and inner webs of the quills below, towards the base, cinnamon; six central tail-feathers very distinctly barred with blackish brown as in *M. leptogrammica*; the three outer pairs bright rufous, the outermost one with the outer web lighter; all three pairs with a broad black subapical bar, extending towards the base on the inner web: "bill black; feet coral-red; iris orange; naked skin round the eyes brick-red" (*Beccari*). Total length about 11·5 inches, wing 5·8, tail 6, bill 0·6, tarsus 0·65.

Female. Different from the male; dark brown-chestnut, but lighter than the male, brighter and more rufous on the rump, upper tail-coverts, and tail; back and wings, as well as the rump and upper tail-coverts, with dark and rufous bars; head dark brown, lighter on the forehead, where the feathers are pale cinnamon with black edges, the rest of the upper part of the head with rufous striations along the middle of the feathers; nape rufous, with irregular brown bars; underparts pale cinnamon; the breast with irregular bars, more or less crescentic; tail as in the male.

Young male. Feathers of the head tipped with rufous; nape and mantle brown, almost regularly barred with rufous; feathers of the throat pale rufous, with black edges; breast with brown bars; wing-coverts and secondaries broadly edged with rufous; tail irregularly barred with rufous, especially towards the tip.

Hab. New Guinea, New Britain, Duke of York Island, and New Ireland.

a. ♂ ad. sk.	Has, N.W. New Guinea, Feb.	Salvin-Godman Coll.
b, c. ♂ ♀ ad. sk.	Amberbaki, N.W. New Guinea, May.	Salvin-Godman Coll.
d, e, f. ♂ ♀ ad. sk.	S.E. New Guinea (*A. Goldie*).	Salvin-Godman Coll.
g. ♂ juv. sk.	Sogeri, S.E. New Guinea, Dec.	H. O. Forbes, Esq. [C.].
h, i. ♂ ♀ ad. sk.	Duke of York Is., March & Sept.	Rev. G. Brown [C.].
k. ♀ ad. sk.	Duke of York Is., Oct. (*Rev. G. Brown*).	Tweeddale Coll.

l. ♂ ad. sk.	New Ireland, Nov. (*Rev. G. Brown*).	Tweeddale Coll.
m. ♂ ad. sk.	New Britain, Nov.	Hr. J. Kleinschmidt [C.].

26. Macropygia rufo-castanea.

Macropygia, sp., *Rams. Pr. Linn. Soc. N. S. W.* iv. p. 73 (Lango, Guadalcanar) (1879); *Salvad. Ibis*, 1880, p. 128.

Macropygia rufo-castanea, *Rams. Pr. Linn. Soc. N. S. W.* iv. p. 314 (June 25, 1879), vii. pp. 37, 673 (Solomon Isl.) (1882); *Rchnw. & Schal. J. f. O.* 1882, p. 117; *Salvad. Orn. Pap. e Mol.* iii. pp. 149, 561 (1882); *Grant, P. Z. S.* 1887, p. 332 (Alu), 1888, p. 200 (Aola); *Wardl. Rams. Ibis*, 1890, p. 229; *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 63 (*Agg. Orn. Pap. e Mol.* p. 189) (1891).

Macropygia arossi, *Tristr. Ibis*, October 1879, p. 443; *Salvad. Ibis*, 1880, p. 131.

Macropygia castanea (*errore*), *Salvad. Ibis*, 1880, pp. 128, 131.

Macropygia crossi (*sic*), *Tristr. Ibis*, 1882, p. 144, n. 83; *Rams. ibid.* p. 474.

Macropygia arossiana, *Tristr. Cat. Coll. B.* p. 39 (1889); *id. Ibis*, 1892, p. 297 (Bugotu, Solomon Isl.).

Adult female. Above rufous chestnut, paler or cinnamon beneath, paler still on the throat; crop-feathers forked as in *M. rufa*, black at base and tipped with cinnamon; quills and primary-coverts brown-black, the inner webs towards the base, like the under wing-coverts, cinnamon; tail rufous chestnut, brighter on the outer pair of feathers; the three outer pairs have a dark subterminal band, extending towards the base of the inner web: "iris orange; bill black; feet red" (*Woodford*). Total length 11·5 to 12 inches, wing 5·7, tail 6·3, bill 0·47, tarsus 0·75.

Young female. Head-feathers blackish at base, and with a black spot on either web; upper wing-coverts brown, with broad rufous-cinnamon tips; some slight indication of dark bars near the tip of the tertials; tail-feathers more pointed; crop-feathers not forked.

The *adult male* is unknown to me.

Hab. Solomon Islands.

a, b, c. ♀ ad et juv. sk.	Guadalcanar.	C. M. Woodford, Esq. [C.].
d. ♂ juv. sk.	Alu.	C. M. Woodford, Esq. [C.].

27. Macropygia rufa.

? Macropygia, sp., *Tristr. Ibis*, 1876, p. 264 (Aneiteum); *id. Cat. Coll. B.* p. 39 (Aneiteum, N. Hebrides, *Inglis*) (1879).

Macropygia rufa, *Rams. Pr. Linn. Soc. N. S. W.* ii. p. 287 (1878) (Havannah Harbour, Sandwich I.); *Tristr. Ibis*, 1879, pp. 194, 443 (Tanna, Vaté, Aneiteum); *E. L. C. & E. L. Layard, Ibis*, 1880, p. 292 (=C. ferruginea, *Forst.**); *Rams. Ibis*, 1882, p. 344; *Tristr. Cat. Coll. B.* p. 39 (1889); *Wardl. Rams. Ibis*, 1890, p. 227; *Wiglesw. Aves Polynes.* p. 54, n. 276 (1891).

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* *Columba ferruginea*, Forst., has a short tail: Columba brachyura, &c.; and it is stated to be allied to *C. leucophrys*, which is a *Phlogœnas*.

Adult male. "Above chestnut-brown, browner on the upper tail-coverts, beneath paler and more hazel; under wing-coverts and axillaries bright rufous; tail beneath (or rather above?) pale chestnut; three outer pairs of rectrices buff, with a broad band across the centre of the feathers and extending towards the base of the inner web: 'iris orange; bill black; legs dull red' (*Layard*)." (Vaté, N. Hebrides, *Mus. Tristram*, fide *Wardlaw Ramsay*.)

Adult male (Erromango). Above dull chestnut-brown, brighter on the rump and upper tail-coverts; forehead, sides of the head, fore neck, breast, and under tail-coverts rufous chestnut or dull cinnamon; feathers of the breast forked as in some species of *Ptilopi*; abdomen paler and minutely freckled with brown; under wing-coverts and inner webs of the quills towards the base rufous chestnut; tail above brown-chestnut; three outer pairs of rectrices bright rufous, with a broad black band on the apical portion, extending towards the base of the inner web: "iris yellow; bill black; feet red" (*Layard*). Total length about 12·5 inches, wing 6·3, tail 7, bill 0·51, tarsus 0·8.

Female. Like the male, but paler, with no uniform cinnamon colour on the forehead, sides of the head, fore neck, and breast, these parts being pale rufous, minutely freckled with brown; the throat whitish; the forked feathers of the breast showing dusky bases, and some having paler tips: "iris yellow; feet cherry" (*Layard*).

Another specimen from Aneiteum is like the last, but slightly darker above, and some of the breast-feathers are paler, almost whitish towards the tips.

Hab. New Hebrides—Vaté, Aneiteum, Tanna, Erromango, **Ambrym, Mallicolo, St. Bartholomew, Santo, Api.**

a. ♂ ad. sk.	Erromango, New Hebrides, June (*E. L. Layard*).	Salvin-Godman Coll.
b. Ad. sk.	Aneiteum, New Hebrides.	Cuming Coll.
c. ♀ ad. sk.	Port Resolution, Tanna Is., July (*G. E. Richards*).	Salvin-GodmanColl.*

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* MACROPYGIA MACKINLAYI.

Macropygia mackinlayi, *Rams. Pr. Linn. Soc. N. S. W.* ii. pp. 286, 287 (1878) (Tanna), iii. p. 339 (1879); *Tristr. Ibis*, 1879, p. 194; *Wardl. Rams. Ibis*, 1890, p. 227; *Wiglesw. Aves Polynes.* p. 54, n. 277 (1891).

Female. "The whole of the upper surface dark ashy brown, darker on the wings; the second, third, and fourth primary quills with an inconspicuous narrow line of white on the outer edge of the outer web; the rump and upper tail-coverts, wing-coverts, and scapularies minutely freckled with ashy white, giving a powdery appearance to those parts; the under surface is of a light ashy brown, blackish on the centre of the breast feathers, which are forked; the throat and the whole of the under surface minutely freckled with a light ashy tint; *under wing-coverts and inner webs of the quills ashy white*; tail ashy brown, lighter below, the outer feathers above blackish, with the tips ashy white and an oval cream-coloured patch occupying the central portion of the feathers and extending over the outer web to the base; the blackish colour from the inner web extends in a wedge-shaped stripe along the shaft; the next feather similar, but without the whitish mark on the outer web; *an oval*

7. REINWARDTŒNAS.

Type.

Reinwardtœna, *Bp. Consp. Av.* ii. p. 59 (1854). .... R. reinwardti.
Reinwardtænas, *Bp. Ann. Sc. Nat.* (4) iii. p. 140, n. 1666 (1854).
Reinwardtæna, *G. R. Gr. List Spec. B. Brit. Mus.* Columbæ, p. 40 (1856).
Coccyzœnas, *Heine, Nomencl. Mus. Hein. Orn.* p. 278 (1890) (=Reinwardtœnas).

Range. From Celebes to Duke of York Island.

Key to the Species.

a. Back chestnut.
  a'. Larger, more greyish ..... *reinwardti*, p. 365.
  b'. Smaller, more white ..... *minor*, p. 367.
b. Back slate-black ..... *browni*, p. 367.

1. Reinwardtœnas reinwardti.

Columba reinwardtsi (*sic*), *Temm. Pl. Col.* 248 (livr. 42, 1825) (Celebes, type examined); *Steph. Gen. Zool.* xiv. p. 293 (1826); *Less. Man. d'Orn.* ii. p. 163 (1828); *id. Tr. d'Orn.* p. 473 (1831) (New Guinea); *id. Compl. de Buff., Ois.* viii. p. 71 (1837) (Celebes, Moluccas, and New Guinea); *id. op. cit.* 2nd ed. p. 288 (1838).
Columba reinwardtii, *Desm. Dict. Sc. Nat.* xl. p. 358 (1826); *Wagl. Syst. Av.* Columba, sp. 39 (1827); *Prév. & Knip, Pig.* ii. pl. 6 (err. pl. 11) (1838–43); *S. Müll. Verhandl. Land- en Volkenk.* p. 109 (Amboina) (1839–44).
Macropygia reinwardii (*sic*), *Sw. Class. B.* ii. p. 349 (1837).
Macropygia reinwardtii, *G. R. Gr. Gen. B.* ii. p. 471, n. 7 (1844); *Rchnb. Av. Syst. Natur.* p. xxv (1852); *G. R. Gr. List Spec. B. Brit. Mus.* Columbæ, p. 40 (1856); *id. P. Z. S.* 1858, p. 196; *id.*

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oblique spot of cream-colour on the inner web only of the third quill, the fourth, fifth, and sixth without spots and of a uniform ash-brown; *under tail-coverts creamy white*; tarsi olive-brown; bill black. Total length 12 inches, bill from forehead 0·6, from base of nostril 0·5, wing 6·1, tail 6·8, outer tail-feather 3·6, tarsus 0·84." (*Ramsay.*)

Hab. Tanna, N. Hebrides.

"This interesting species has the peculiarity of having the feathers of the chest forked, as in some of the *Ptilopi*." (*Ramsay.*)

Mr. Ramsay, speaking of this species and *M. rufa*, remarks that "notwithstanding the great differences in coloration between the two, they may hereafter prove identical; the style of markings, he says, is very similar, but the bill in *M. rufa* is stronger and more rounded at the tip; both have comparatively weak bills, and on the whole are very slightly-built birds."

As I have never seen this bird, which is only known to me from the description, I shall limit myself to repeating what Major Wardlaw Ramsay says:—"What this bird from the Island of Tanna can be I do not know. Mr. E. P. Ramsay suggests (*l. c.*) the likelihood that it is the same as *M. rufa*, but it is difficult, from his description, to realize such a possibility. Certainly none of the four specimens described above (*l. c.*) approach to the remarkable characters ascribed to *M. mackinlayi*. On the other hand, it does not seem likely that an island of the size of Tanna should contain two distinct species of small *Macropygiæ*."

Cat. B. New Guin. p. 61 (1859); *Wall. Ibis*, 1860, p. 198; *G. R. Gr. P. Z. S.* 1860, p. 361 (Batchian, Gilolo), 1861, p. 437 (Waigiou); *Finsch, Neu-Guin.* p. 178 (1865); *Schleg. Mus. P.-B.* Columbæ, p. 104 (1873); *Gieb. Thes. Orn.* ii. p. 518 (1875); *Rosenb. Reist. naar Geelvinkb.* p. 117 (1875); *id. Malay. Archip.* pp. 323, 396, 561 (1879); *Tristr. Cat. Coll. B.* p. 39 (1889).

Reinwardtœna typica, *Bp. Consp. Av.* ii. p. 59 (1854); *id. Compt. Rend.* xxxix. p. 1112 (1854) (ex Java!), xl. p. 219, n. 171 (1855); *id. Coup d'œil Ordr. Pig.* pp. 28, 57, n. 171 (1855).

Turacœna reinwardtii, *Rchnb. Tauben*, i. p. 89, n. 201, t. 252. f. 1400 (1862), ii. p. 176 (Menado) (1862).

Ectopistes reinwardtii, *Rosenb. N. T. N. I.* xxv. p. 250, n. 238 (1863); *id. J. f. O.* 1864, p. 133.

Turtur reinwardtii, *Schleg. De Dierent.* p. 206 (1864).

Reinwardtœna reinwardtii, *Wall. Ibis*, 1865, p. 391; *id. J. f. O.* 1866, p. 283; *Wald. Tr. Zool. Soc.* viii. p. 85 (1872); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 16 (1873); *Salvad. Ann. Mus. Civ. Gen.* vii. pp. 790, 835 (1875), ix. pp. 43, 203, n. 60 (1876), x. p. 160 (1877); *Rams. Pr. Linn. Soc. N. S. W.* iii. p. 293 (1878), iv. p. 101, n. 171 (1879); *D'Alb. & Salvad. Ann. Mus. Civ. Gen.* xiv. p. 121 (1879); *Meyer, Ibis*, 1879, p. 137 (Celebes); *Sharpe, Journ. Linn. Soc., Zool.* xiv. p. 633 (1879); *D'Alb. Nuova Guin.* pp. 582, 585, 588 (1880).

Reinwardtænas reinwardtii, *G. R. Gr. Hand-list*, ii. p. 237, n. 9310 (1870); *Meyer, J. f. O.* 1873, p. 405.

Reinwardtœnas reinwardtii, *Salvad. Orn. Pap. e Mol.* iii. p. 125 (1882); *Sharpe, Journ. Linn. Soc., Zool.* xvi. p. 446 (Milne Bay) (1882); *Blas. & Nehrk. Verh. z.-b. Ges. Wien*, 1882, p. 429 (Amboina); *Nehrk. J. f. O.* 1885, p. 34; *Guillem. P. Z. S.* 1885, p. 376 (Batchian, Obi Latu), p. 661 (Waigiou, Batanta); *Finsch & Meyer, Zeitschr. f. ges. Orn.* 1886, p. 28 (Horseshoe Range); *Wardl. Rams. Ibis*, 1890, p. 241; *Meyer, Ibis*, 1890, p. 423 (Constantine Harbour); *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 60 (*Agg. Orn. Pap. e Mol.* p. 186) (1891).

Coccyzœnas reinwardti, *Heine & Rchnw. Nomencl. Mus. Hein. Orn.* p. 278 (1890).

Adult male. Head, neck, and mantle pale lavender; quills and outer wing-coverts dark brown, almost black; inner wing-coverts, tertials, scapulars, and back rich chestnut; fore part of the neck and breast white; abdomen and under tail-coverts lavender, deeper on the latter; axillaries lavender; under wing-coverts black; central tail-feathers chestnut, the next two pairs chestnut, with the base brown-chestnut and a lavender bar, the fourth pair brown, barred with lavender and tipped with chestnut and brown, the fifth pair brown, barred and tipped with lavender, the outer pair lavender, with a black subapical bar, and with outer web almost entirely white and the inner web black at the base: "bill red, tip black; feet coral; naked skin round the eyes carmine; irides deep red" (*D'Albertis*). Total length about 20 inches, wing 9, tail 12, bill 0·75, tarsus 0·87.

Female. Similar to the male, but smaller.

Young. Head, neck, back, and underparts dull earthy brown, instead of lavender.

Hab. Celebes, Halmahera, and Amboyna Groups, New Guinea with the western Papuan Islands, wanting in the Aru and Ké Islands, and also in Jobi, Mafor, and Miosnom. Specimens from the Papuan Islands have the breast pale lavender instead of pure white.

Major Wardlaw Ramsay mentions Lombock and Flores among the localities inhabited by this species, but I have failed to find the authority for this statement.

a. Ad. st.	Celebes.	
b. ♀ ad. sk.	Gilolo (*Wallace*).	Gould Coll.
c, *d*. Ad. sk.	Batchian.	Wallace Coll.
e. ♂ ad. sk.	Batchian (*Wallace*).	Gould Coll.
f. Ad. sk.	Batchian.	Salvin-Godman Coll.
g. Ad. sk.	Amboyna.	Sir E. Belcher [P.].
h. Ad. sk.	Amboyna.	Wallace Coll.
i. Ad. sk.	E. Ceram (*Wallace*).	Seebohm Coll.
k. ♂ ad. sk.	Waigiou.	Wallace Coll.
l. ♀ ad. sk.	Salawatti, July (*Wallace*).	Gould Coll.
m. Ad. sk.	New Guinea.	Wallace Coll.
n. Ad. sk.	New Guinea (*Wallace*).	Tweeddale Coll.
o. Ad. sk.	New Guinea (*Wallace*).	Seebohm Coll.
p, *q*. Ad. et juv. sk.	N.W. New Guinea.	Salvin-Godman Coll.
r. Ad. sk.	S.E. New Guinea (*A. Goldie*).	Salvin-Godman Coll.
s. Ad. sk.	Port Moresby.	J. Broadbent, Esq. [C.].
t. Ad. sk.	Port Moresby (*A. Goldie*).	Salvin-Godman Coll.
u. ♂ ad. sk.	Milne Bay.	C. Hunstein, Esq. [C.].

2. Reinwardtœnas minor.

Macropygia reinwardtii minor, *Schleg. Mus. P.-B.* Columbæ, p. 106 (1873) (Soek, type examined).

Reinwardtœna minor, *Salvad. Ann. Mus. Civ. Gen.* ix. p. 203, n. 61 (1876).

Reinwardtœnas minor, *Salvad. Orn. Pap. e Mol.* iii. p. 129 (1882); *Wardl. Rams. Ibis*, 1890, p. 242; *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 60 (*Agg. Orn. Pap. e Mol.* p. 186) (1891).

Similar to *R. reinwardti*, but much smaller and of a much purer white below, and whiter also on the head. Total length 16·20 inches, wing 8·25, tail 8·25, bill 0·70, tarsus 0·90.

Hab. Misori Island, Geelvink Bay.

3. Reinwardtœnas browni.

Macropygia browni, *Sclat. P. Z. S.* 1877, p. 110, 1878, pp. 671, 673; *Finsch, Ibis*, 1881, p. 538; *Tristr. Cat. Coll. B.* p. 39 (1889).

Reinwardtœnas browni, *Salvad. Orn. Pap. e Mol.* iii. pp. 130, 561 (1882); *Sclat. P. Z. S.* 1883, p. 348; *Wardl. Rams. Ibis*, 1890, p. 242; *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 60 (*Agg. Orn. Pap. e Mol.* p. 186) (1891).

Adult male (type). Head, neck, and underparts white, tinged with grey on the occiput, nape, mantle, and flanks; back, remainder of upper parts, including wings and tail, black; the four outer tail-feathers with a pale slate band towards the base; under tail-coverts dark grey: "iris light yellow; bill and feet cherry" (*Richards*); "iris blue with a broad orange margin; legs red" (*Brown*). Total length about 18 inches, wing 9, tail 10, bill 0·8, tarsus 1·1.

Female. Similar to the male.

Hab. Duke of York Island and New Britain.

a. ♂ ad. sk.	Duke of York Is. (*Rev. G. Brown*).	Tweeddale Coll. (Type of species.)
b. Ad. sk.	Duke of York Is. (*Rev. G. Brown*).	Salvin-Godman Coll.
c. ♀ ad. sk.	New Britain, Jan.	Hr. J. Kleinschmidt [C.].

8. CORYPHŒNAS.

Type.

Coryphœnas, *Wardl. Rams. Ibis*, 1890, p. 246 ..... C. crassirostris.

Cf. *Haswell, W. A.*, "*Note on the Anatomy of two rare Genera of Pigeons*" (*Pr. Linn. Soc. N. S. W.* vii. pp. 111–116, 1882); *Wardlaw Ramsay*, "*On a new Genus of the Order* Columbæ" (*Ibis*, 1890, pp. 246–247).

Range. Confined to Solomon Islands.

1. Coryphœnas crassirostris.

Turacœna crassirostris, *Gould, P. Z. S.* 1856, p. 136; *Bp. Compt. Rend.* xliii. p. 839 (1856); *Wall. Ibis*, 1865, pp. 391, 399; *id. J. f. O.* 1866, p. 283; *Sclat. P. Z. S.* 1869, 118; *G. R. Gr. Hand-list*, ii. p. 237, n. 9309 (1820); *Sclat. P. Z. S.* 1878, p. 673; *Rams. Pr. Linn. Soc. N. S. W.* vii. p. 36 (1882); *Haswell, ibid.* p. 116 (anatomy) (1882); *Grant, P. Z. S.* 1888, p. 199 (Aola, Guadalcanar).

Macropygia crassirostris, *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 40 (1856); *id. Cat. B. Trop. Isl.* p. 43 (1859); *Sclat. P. Z. S.* 1869, p. 124; *G. R. Gr. Cruise of the 'Curaçoa,'* p. 390, pl. 19 (1873); *Gieb. Thes. Orn.* ii. p. 517 (1875); *Tristr. Ibis*, 1882, p. 144; *id. Cat. Coll. B.* p. 269 (1889).

Reinwardtœna crassirostris, *Salvad. Ann. Mus. Civ. Gen.* ix. p. 204, n. 62 (1876).

Reinwardtœnas crassirostris, *Salvad. Orn. Pap. e Mol.* iii. pp. 131, 560 (1882).

Coryphœnas crassirostris, *Wardl. Rams. Ibis*, 1890, p. 246; *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 60 (*Agg. Orn. Pap. e Mol.* p. 186) (1891).

Adult male. Head dusky brown; occipital feathers lengthened into a greyish-brown crest; whole plumage slate-colour, darker on the upper surface, or back, wings, and tail; outer three pairs of tail-feathers with a grey bar, the outermost feather has the outer

web grey, except towards the apical portion: "iris reddish brown; bill and legs carmine" (*Woodford*). Total length about 16 inches, wing 8·2, tail 8, bill 0·9, tarsus 1.

Young (type). Head dark brown, occipital crest shorter than in the adult, with the tips of the feathers dark chestnut; the general plumage above darker slate-colour: beneath dark brown, changing into the slate of the adult.

Hab. Guadalcanar, Solomon Islands.

a.	Imm. sk.	Guadalcanar.	Voy. of H.M.S. 'Herald.' (Type of species.)
b.	♂ ad. sk.	Guadalcanar.	C. M. Woodford, Esq. [P.].

Subfamily III. ECTOPISTINÆ.

9. ECTOPISTES.

	Type.
Ectopistes, *Sw. Zool. Journ.* iii. p. 362 (1827)*; *id. Class. B.* ii. p. 348 (1837)	E. migratorius.
Trygon, *Brehm (nec Adans.), Handb. Naturg. Vög. Deutschl.* p. 495 (1831)	E. migratorius.

Range. The same as that of the only species.

1. Ectopistes migratorius.

Palumbus migratorius, *Catesb. Car.* i. p. 23, pl. 23 (1754).
Columba americana, *Kalm. It.* ii. p. 527 (1756).
Oenas americana, *Briss. Orn.* i. p. 100, n. 12 (1760).
Turtur canadensis, *Briss. Orn.* i. p. 118, n. 21 (1760).
Columba canadensis, *Linn. S. N.* i. p. 284, n. 30 (1766) (*ex Brisson* †) (female or young); *Gm. S. N.* i. p. 785, n. 30 (1788); *Lath. Ind. Orn.* ii. p. 613, n. 72 (1790); *Bonn. Tabl. Enc. Méth.* i. p. 257 (1790); *Vieill. N. D.* xxvi. p. 377 (1818).
Columba migratoria, *Linn. S. N.* i. p. 285, n. 36 (1766); *Forster, Phil. Trans.* xxii. p. 398 (1772); *Gm. S. N.* i. p. 789, n. 36 (1788); *Lath. Ind. Orn.* ii. p. 612, n. 70 (1790); *Bonn. Enc. Méth.* i. p. 254 (1790); *Wils. Am. Orn.* i. p. 102, pl. xliv. f. 1 (1808); *Temm. & Knip, Pig.* i. seconde fam. pls. 48, 49 (1808-11); *Temm. Pig. et Gallin.* i. pp. 346, 487 (1813); *Vieill. N. D.* xxvi. p. 369 (1818); *Steph. Gen. Zool.* xi. p. 93 (1819); *Desm. Dict. Sc. Nat.* xl. p. 355 (1826); *Bp. Obs. Wilson*, n. 179 (1825); *Wagl. Syst. Av.* Columba, sp. 91 (1827); *Aud. Edinb. Journ. of Sc.* xii. p. 257 (1827); *Flem. Hist. Brit. An.* p. 145 (1828); *Less. Tr. d'Orn.* p. 473 (1831); *Aud. Orn. Biogr.* i. p. 319 (1831); *Nutt. Man.* i. p. 629 (1832); *Eyt. Hist. rarer Brit. B.* p. 30 (1836); *Less. Compl. de Buff. Ois.* viii. p. 62 (1837); *id. op. cit.* 2nd ed. p. 286 (1838); *Aud. Orn. Biogr.* v. p. 561, pl. 62 (1839); *Temm. Man. d'Orn.* iv. p. 309 (1840); *Gulliv. P. Z. S.* 1840, p. 43, 1842, p. 111, 1875, p. 489.
Pigeon de passage, *Buff. Hist. Nat. Ois.* ii. p. 527 (1771).

* Swainson, among the characters of the genus *Ectopistes*, says that the tail is rounded or cuneate, and mentions *C. speciosa*, Temm. (with a ?) and *C. migratoria*, L., as the types; the same author restricted the genus *Ectopistes* to *C. migratoria*, in the second work mentioned above.

† By mistake Linné quotes *Turtur jamaicensis*, Briss., instead of *T. canadensis*.

Tourterelle du Canada, *D'Aubent. Pl. Enl.* 176; *Buff. Hist. Nat. Ois.* ii. p. 552 (1771).
Columba histrio, *Müll. Syst. Nat. Suppl.* p. 134, n. 41 (1776); *Cass. Pr. Ac. Nat. Sc. Philad.* 1864, p. 248.
Columba ventralis, *Müll. l. c.* n. 44 (1776); *Cass. l. c.*
Canada Turtle, *Lath. Syn.* ii. 2, p. 658, n. 58 (1783).
Migratory or Passenger Pigeon, *Lath. Syn.* ii. 2, p. 661, n. 61 (1783).
Ectopistes migratoria, *Sw. Zool. Journ.* iii. p. 362 (1827); *id. Faun. Bor.-Am.* ii. p. 363 (1831); *Selb. Natur. Libr., Pigeons*, p. 177, pl. 19 (1835); *Sw. Class. B.* ii. p. 348 (1837); *Bp. Comp. List*, p. 41 (1838); *Aud. Syn.* p. 194 (1839); *id. B. Am.* v. p. 25, pl. 285 (1842); *Gould, B. of Eur.* pl. 247 (1848); *Woodh. Sitgr. Rep.* p. 92 (1853); *Bp. Consp. Av.* ii. p. 59 (1854); *id. Compt. Rend.* xxxix. p. 1112 (1854), xl. p. 219, n. 172 (1855); *id. Coup d'œil Ordre Pig.* pp. 28, 29, n. 179 (1855); *Gundl. J. f. O.* 1856, p. 112 (Cuba); *Baird, B. N. Am.* p. 600 (1858); *Coop. & Suck. N. H. Wash. Terr.* p. 218 (1860); *Hayd. Rep.* p. 161 (1862); *Lord, Pr. R. A. I.* iv. p. 122 (1864); *Gundl. Repert. Fisico-Nat. Cuba*, i. p. 302 (1865); *Coop. Am. Nat.* iii. p. 80 (1869); *id. B. Cal.* i. p. 571 (1870) (Puget's Sound); *Trippe, Pr. Ess. Inst.* vi. p. 118 (1871); *Coues, Key*, p. 225, f. 145 (1872); *B., B., & R. N. Am. B.* iii. p. 368, pl. 57. f. 4 (1874); *Coues, B. North-West*, p. 387 (1874); *Gundl. J. f. O.* 1874, p. 300; *Sanchez, An. Mus. Nac. Mexico*, i. p. 104, n. 488 (1878); *Cory, List B. W. Ind.* p. 24 (1885); *Maynard, B. E. N. Am.* p. 335 (1881).
Trygon migratoria, *Brehm, Handb. Naturg. Vög. Deutschl.* p. 495 (1831); *id. Naumannia*, 1855, p. 286; *id. Vogelf.* p. 258 (1855).
Columba (Ectopistes) migratoria, *Sw. & Rich. Faun. Bor.-Amer., Birds*, p. 363 (1831).
Ectopistes migratorius, *G. R. Gr. Gen. B.* ii. p. 471 (1844); *Hartl. Syst. Verz.* p. 98 (1844); *Rchnb. Syn. Av.* ff. 1377–79 (1847); *id. Av. Syst. Nat.* p. xxv (1852); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 35 (1856); *Wied, J. f. O.* 1858, p. 423; *Rchnb. Tauben*, i. p. 81, t. 249. ff. 1377–79 (1862), ii. p. 176 (1862); *Degl. & Gerbe, Orn. Eur.* ii. p. 12 (1867); *G. R. Gr. Handlist*, ii. p. 235, n. 9281 (1870); *Baird & Coop. Orn. of California*, p. 509 (1870); *Snow, B. Kansas*, ed. 3, p. 10 (1875); *Gieb. Thes. Orn.* ii. p. 77 (1875); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 16 (1873); *Sanchez & Villada, Naturaleza*, ii. p. 250 (1873); *Saund. Yarr. Brit. B.* iii. p. 26 (1882); *Coues, Check-list*, p. 92, n. 543 (1882); *B. O. U. List Brit. B.* p. 140 (1883); *Sclat. List Vert. An.* 8th ed. p. 449 (1883); *Coues, Key N. Am. B.* p. 566 (1884); *A. O. U. Check-list*, p. 139 (1886); *Cory, Auk*, 1887, p. 113; *id. B. W. Ind.* p. 214 (1889); *Brewst. Auk*, 1889, pp. 286–291; *Tristr. Cat. Coll. B.* p. 38 (1889); *Herrera, Apuntes de Ornitol.* p. 20 (— ?); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 278 (1890); *D., Forest & Stream*, xxxv. p. 190 (1890); *Shufeldt, P. Z. S.* 1891, p. 194; *Hartert, Kat. Vogelsamml.* p. 185 (1891); *Thompson, Pr. U.S. Nat. Mus.* xiii. p. 522 (1891) (Manitoba); *Tavi, Forest & Stream*, xxxvii. p. 418 (1892); *Bendire, Life-Hist. N. Am. Birds*, p. 132 (1892).
Turtur migratorius, *Schleg. De Dierent.* p. 305 (1864).
Peristera migratoria, *Schleg. Mus. P.-B.* Columbæ, p. 142 (1873).
Trygon gregaria, *Brehm, Naumannia*, 1855, p. 286*; *id. Vogelf.* p. 258 (1855).

Adult male. Head, hind neck, back, rump, upper tail-coverts, and upper wing-coverts bluish grey, lighter on the rump; chin whitish

* *Ectopistes migratorius* ♂ × *Turtur risorius* ♀, Mitch. P. Z. S. 1849, p. 172.

grey; throat and breast cinnamon-rufous, becoming pale vinous on the abdomen and sides, flanks light grey; vent and under tail-coverts white; the back and sides of neck glittering with golden and amethystine violet; scapulars, tertials, and median wing-coverts with velvety-black spots; quills brown-black with greyish edges, the inner primaries grey at the base of the outer webs; under wing-coverts bluish grey; central tail-feathers dark grey, the remainder pearl-grey, nearly white towards the apical part, each with a patch of cinnamon at the base of the inner web, followed by a black spot: bill black; feet lake-red; iris orange; skin about eye red. Total length about 17 inches, wing 8–8·5, tail 8·4, bill 0·75, tarsus 1.

Female. Head, hind neck, back, scapulars, and smaller wing-coverts pale brown: rump and upper tail-coverts grey; sides of the neck glittering with amethystine-purple; throat reddish white; lower fore part of the neck and breast pale brown, paler than above, and fading into white on the abdomen and under tail-coverts; median and greater wing-coverts brownish grey; the median wing-coverts, the scapulars, and the tertials with black spots, more numerous than in the male; quills brown, the inner primaries dull greyish at the base of the inner web; tail as in the male, but the central feathers have a brown-grey tinge.

Young. Like the female but still duller, the feathers of the upper parts and breast with white crescentic edges; quills edged with rufous; the inner lateral feathers dull bronze-grey towards the tip.

Hab. Eastern North America, from Hudson's Bay southward, and westward to the Great Plains, straggling westward to Nevada and Washington Territory. Accidental in Cuba.

a. ♂ ad. st.	N. America.	Hardwicke Bequest.
b. ♂ ad. sk.	N. America.	Hudson's Bay Co. [P.].
c. ♂ ad. st.	N. America.	
d. ♀ ad. st.	N. America.	Purchased.
e. ♀ ad. sk.	Canada (*G. E. Shelley*).	Tweeddale Coll.
f, *g*, *h*. ♂ ♀ ad. et juv. sk.	W. side of Rocky Mts.	J. K. Lord, Esq. [P.].
i. ♂ ad. sk.	49th Parallel.	N. America Boundary Comm.
k, *l*, *m*. ♂ ♀ ad. sk.	Fort Dufferin.	N. America Boundary Comm.
n. ♂ ad. sk.	Market, Dist. of Columbia, Feb. (*Elliott Coues*).	Salvin-Godman Coll.
o. ♀ ad. sk.	Lyon's Falls, New York, April (*A. J. Dayan*).	Salvin-Godman Coll.
p, *q*. ♂ ♀ ad. sk.	Big Otter Lake, New York, April (*C. H. Merriam*).	Salvin-Godman Coll.
r. ♂ juv. sk.	Ontonagon, Michigan, Feb. (*A. J. Dayan*).	Salvin-Godman Coll.
s, *t*. Juv. et pull. sk.	Adirondacks, New York, June (*C. H. Merriam*).	Salvin-Godman Coll.
u. ♂ ad. sk.	Gropitville, Mass., May (*H. W. Henshaw*).	Salvin-Godman Coll.
v. Juv. st.	? California.	Purchased.
w. Skeleton.		Purchased.

Family III. PERISTERIDÆ.

Key to the Subfamilies.

a. Feathers of the neck not hackled.
  a'. A blackish spot more or less metallic beneath the ear-coverts; sides of the neck with a metallic gloss .... 1. *ZENAIDINÆ*, p. 373.
  b'. No blackish spot beneath the ear-coverts.
    a''. No metallic spots on the wings; tail of 12 feathers, rather broad; tarsus naked on the upper part; neck with a dark collar, more or less distinct, or with scale-like patches on the sides ..... 2. *TURTURINÆ*, p. 396.
    b''. No metallic spots on the wings; size of a Common Dove or much smaller; wings rounded, the primaries not much longer than the tertials; tarsus scutellated anteriorly; tail rather long; no metallic lustre on the sides of the neck or on any other part; tail of 14 or 12 feathers..... 3. *GEOPELIINÆ*, p. 454.
    c''. Metallic spots on the wings (except in *Metriopelia melanoptera*). Size small, much smaller than that of a Common Dove; tail of 12 feathers; the base of the outer tail-feathers never of a grey colour, sharply defined from a dark apical band; primaries not much longer than the secondaries (except in *Metriopelia melanoptera*); general colour almost uniform. Confined to America ..... 4. *PERISTERINÆ*, p. 470.
    d''. Metallic blue or green spots or patches on the wings; size generally larger than that of a Common Dove, if smaller the general colour not uniform. Confined to the Old World ..... 5. *PHABINÆ*, p. 500.
    e''. No definite metallic spots or bands on the wings, although often a broad glossy violet patch near the bend of the wing; form robust or Partridge-like; legs very stout; tarsi decidedly longer than the middle toe, and variously scaled anteriorly; wings short, very

broad and much rounded, but the primaries decidedly longer than the secondaries ..... 6. *GEOTRYGONINÆ*, [p. 537.

b. Feathers of the neck hackled, very long and narrow ..... 7. *CALŒNADINÆ*, p. 614.

Subfamily I. ZENAIDINÆ.

Key to the Genera.

a. Scapulars and innermost upper wing-coverts spotted with black.

a'. Tail of 14 feathers; bill moderate and almost straight.

a''. Tail rather long, graduated or cuneate .. 1. ZENAIDURA, p. 373.

b''. Tail moderate and rounded ..... 2. ZENAIDA, p. 379.

b'. Tail of 12 feathers, rather short and rounded; bill rather long and much bent downwards ..... 3. NESOPELIA, p. 390.

b. No black spots on the scapulars; a white patch on the exterior upper wing-coverts; first two primaries slightly scooped towards the apical third of the inner web; tail moderate, rounded, and rather broad ..... 4. MELOPELIA, p. 391.

1. ZENAIDURA*.

	Type.
Zenaidura, *Bp. Consp. Av.* ii. p. 84 (1854).....	Z. carolinensis.
Perissura, *Cab. J. f. O.* 1856, pp. 111, 112.....	Z. carolinensis.
Zenaedura, *Coues, B. North-West*, p. 389 (1874).	

Range. From Northern to Central America and West Indies.

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* Zenaidura yucatanensis, *Lawr. Ann. Lyc. N. Y.* ix. p. 208 (1869) (Merida, Yucatan); *G. R. Gr. Hand-list*, ii. p. 236, n. 9284 (1870); *B., B., & R. N. Am. B.* iii. p. 382 (note) (1874) (hybrid?); *Salv. Ibis*, 1874, p. 312; *Sanchez, Ann. Mus. Nac. Mexico*, i. p. 105, n. 491 (1878); *Ridgw. Auk*, i. p. 96 (1884); *id. Pr. U.S. Nat. Mus.* vii. p. 177 (1884).
Chamæpelia yucatanensis, *Gieb. Thes. Orn.* i. p. 636 (1872).

Thanks to the authorities of the Smithsonian Institution, I have been able to examine the type of *Zenaidura yucatanensis*, and I quite agree with the authors of the 'North American Birds' that it is so exactly intermediate between *Zenaidura carolinensis* and *Zenaida amabilis* [potius *yucatanensis*] as to lead to the suspicion that it is a hybrid between the two: like them, it possesses fourteen tail-feathers; the coloration and size and shape of the bill are exactly those of *Zenaida yucatanensis*, while the tail-feathers are intermediate in length and shape between those of the two species. The colours differ from those of *Zenaida yucatanensis* only in being of a just perceptible lighter shade, there being the same broad white tip to the secondaries, brilliant steel-blue subauricular spot, and deep reddish vinaceous crissum characterizing *Zenaida yucatanensis* as distinguished from *Zenaidura carolinensis*; with the latter species it agrees in the white of the apical portion of the tail-feathers, while in *Z. yucatanensis* the same apical portion is constantly grey.

Key to the Species.

a. Beneath light purplish vinaceous (♂) or pale brown (♀); crissum nearly white.
  a'. Larger: total length about 12·5 inches, but smaller bill (0·58) and feet (middle toe 0·82); above more greyish ..... *carolinensis*, p. 374.
  b'. Smaller: total length about 10·75 inches, but longer bill (0·67) and feet (middle toe 0·98); above more brownish ..... *clarionensis*, p. 378.
b. Beneath entirely rufous cinnamon ..... *graysoni*, p. 378.

1. Zenaidura carolinensis.

Long-tailed Dove, *Edw. Birds*, i. p. 15, pl. 15 (1750).

Columba macroura, *Edw. op. cit.* p. 125 (1750); *Linn. S. N.* (ed. x.) p. 164, n. 16 (part.) (1758).

Turtur carolinensis, *Catesb. Car.* i. p. 24, pl. 24 (1754); *Briss. Orn.* i. p. 110, pl. viii. f. 1 (1760).

Turtur americanus, *Briss. Orn.* i. p. 102 (1760) (*ex Edwards*).

Columba carolinensis, *Linn. S. N.* i. p. 286, n. 37 (1766) (*ex Catesby*); *Gm. S. N.* i. p. 789, n. 37 (1788); *Lath. Ind. Orn.* ii. p. 613, n. 71 (1790); *Bonn. Tabl. Enc., Orn.* i. p. 254 (1790); *Temm. & Knip, Pig.* i. fam. seconde, pl. 50 (1808–11); *Wils. Am. Orn.* v. p. 91, pl. 43. f. 1 (1812); *Temm. Pig. et Gallin.* i. pp. 355, 487 (1813); *Steph. Gen. Zool.* xi. p. 96 (1819); *Bp. Obs. Wils.* n. 159 (1825); *Desm. Dict. Sc. Nat.* xl. p. 358 (1826); *Less. Tr. d'Orn.* p. 474 (1831); *Aud. Orn. Biogr.* i. p. 91 (1831); *Nutt. Man.* i. p. 623 (1832); *Less. Compl. de Buff., Ois.* viii. p. 65 (1837); *id. op. cit.* 2nd ed. p. 287 (1838); *Aud. Orn. Biogr.* v. p. 555, pl. 17 (1839); *D'Orb. in La Sagra's Hist. Nat. Cuba, Ois.* p. 176 (1839) (large ed. p. 129); *Denny, P. Z. S.* 1847, pp. 39, 40; *Hartl. Isis*, 1847, p. 611; *Sund. Œfv. K. Vet.-Akad. Förh.* 1869, p. 601 (Porto Rico).

Columba marginata, *Linn. S. N.* i. p. 286, n. 40 (1766) (*ex Edwards*); *Gm. S. N.* i. p. 791, n. 40 (1788); *Lath. Ind. Orn.* ii. p. 614, n. 73 (1790); *Bonn. Tabl. Enc., Orn.* i. p. 256 (1790); *Vieill. N. D.* xxvi. p. 386 (1818); *Wagl. Syst. Av.* Columba, sp. 92 (1827); *id. Isis*, 1831, p. 519.

Tourterelle de la Caroline, *D'Aubent. Pl. Enl.* 175.

Tourte, *Buff. Hist. Nat. Ois.* ii. p. 537 (1771).

Tourterelle d'Amérique, *Buff. op. cit.* p. 552 (1771).

Columba fusca, *Müll.* (*nec Pall.*) *S. N. Suppl.* p. 134, n. 43 (1776); *Cass. Pr. Ac. Nat. Sc. Philad.* 1864, p. 248.

Caroline Pigeon, *Lath. Syn.* ii. 2, p. 663, n. 62 (1783).

Marginated Turtle, *Lath. op. cit.* p. 664, n. 63 (1783).

Ectopistes carolinensis, *Richards. List* (1837, *teste Coues*); *Bp. Comp. List*, p. 41 (1838); *Aud. Syn.* p. 195 (1839); *id. B. Am.* v. p. 36, pl. 286 (1842); *Peale, Un. St. Expl. Exped., Birds*, p. 112 (1848); *Hartl. Wiegm. Arch.* 1852, p. 114; *Woodh. Sitgr. Rep.* p. 92 (1853); *Newb. P. R. R. Rep.* vi. p. 92 (1857); *Heerm. ibid.* x. pt. vi. p. 60 (1859).

Ectopistes marginatus, *G. R. Gr. Gen. B.* ii. p. 471, n. 2 (1844); *Hartl. Syst. Verz.* p. 98 (1844); *Rchnb. Syn. Av.* ff. 1380–82 (1847); *id. Av. Syst. Nat.* p. xxv (1852); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 35 (1856).

Ectopistes marginellus, *Woodh. Pr. Ac. Nat. Sc. Philad.* 1852, p. 104 (California); *id. Sitgr. Rep.* p. 93, pl. 5 (1853); *G. R. Gr. Handlist*, ii. p. 236, n. 9283 (1870).

Zenaidura carolinensis, *Bp. Consp. Av.* ii. p. 84 (1854); *id. Compt. Rend.* xl. p. 220, n. 251 (1855); *id. Coup d'œil Ordre Pig.* p. 58, n. 251 (1855); *Sclat. P. Z. S.* 1856, p. 309 (Cordova); *Sallé, P. Z. S.* 1857, p. 235 (San Domingo); *Baird, B. N. Am.* p. 604 (1858); *Kenn. P. R. R. Rep.* x. pt. iv. p. 33 (1859); *Sclat. P. Z. S.* 1859, p. 391; *Sclat. & Salv. Ibis*, 1859, p. 222 (Dueñas); *Coop. & Suck. N. H. Wash. Terr.* p. 218 (1860); *Taylor, Ibis*, 1860, p. 227 (Honduras); *Rchnb. Tauben*, i. p. 19, t. 249. ff. 1380–82 (1862); *Hayd. Rep.* 1862, p. 172; *Boardm. Pr. Bost. Soc.* ix. p. 127 (1862) (Maine); *Allen, Pr. Ess. Inst.* iv. p. 75 (1864); *Coues, Pr. Ac. N. S. Philad.* 1866, p. 93 (Arizona); *Dress. Ibis*, 1866, p. 24 (Texas); *Gundl. Repert.* p. 30 (1866) (Cuba); *McIlwr. Pr. Ess. Inst.* v. p. 91 (1866) (Canada W.); *Coues, Pr. Ess. Inst.* v. p. 287 (1868); *Lawr. Ann. Lyc. N. Y.* ix. p. 139 (Costa Rica), p. 207 (Yucatan) (1869); *Coop. Am. Nat.* iii. p. 81 (1869); *Baird & Coop. B. Cal.* i. p. 512 (1870); *Stev. U.S. Geol. Surv. Terr.* 1870, p. 465; *Allen, Bull. M. C. Z.* iii. p. 181 (1872); *Aitken, Pr. Bost. Soc.* 1872, p. 208; *Coues, Key*, p. 226, f. 146 (1872); *Sclat. & Salv. Nomencl. Av. Neotr.* p. 132 (1873); *Lawr. Mem. Bost. Soc. N. H.* ii. p. 334 (1874); *B., B., & R. N. Am. B.* iii. p. 383, pl. 58. f. 2 (1874); *Henshaw, Ann. Lyc. N. Y.* xi. p. 10 (1874) (Utah); *Brewst. ibid.* p. 145 (1875); *Snow, B. Kansas*, ed. 3, p. 10 (1875); *Lawr. Bull. U.S. Nat. Mus.* n. 4, p. 44 (1876); *Cory, Bull. Nutt. Orn. Club*, vi. p. 154 (1881); *Maynard, B. E. N. Am.* p. 338 (1881) (Haiti); *Coues, Check-list*, p. 92 (1882); *Salv. Cat. B. Strickl. Coll.* p. 548 (1882); *Sclat. List Vert. An.* 8th ed. p. 449 (1883); *Cory, B. Haiti & San Domingo*, p. 129 (1885); *id. List B. W. Ind.* p. 23 (1885); *Salv. Ibis*, 1889, p. 377 (Cozumel I.); *Tristr. Cat. Coll. B.* p. 40 (1889); *Hartert, Kat. Vogelsamml.* p. 185 (1891).

Zenaidura marginella, *Bp. Consp. Av.* ii. p. 85 (1854); *id. Compt. Rend.* xl. p. 220, n. 252 (1854); *id. Coup d'œil Ordre Pig.* p. 58, n. 252 (1855); *Rchnb. Tauben*, i. p. 20 (1862); *G. R. Gr. Hand-list*, ii. p. 236, n. 9283 (1870).

Trygon carolinensis, *Brehm, Vogelf.* p. 258 (1855).

Perissura carolinensis, *Cab. J. f. O.* 1856, p. 111 (Cuba); *Brewer, Pr. Bost. Soc. Nat. Hist.* vii. p. 307 (1860) (Cuba); *Gundl. Repert. Fisico-Nat. Cuba*, i. p. 301 (1865); *id. J. f. O.* 1874, p. 298 (Cuba); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 278 (1890).

Turtur carolinensis, *Schleg. De Dierent.* p. 206 (1864).

Columba (Zenaidura) carolinensis, *Bryant, Pr. Bost. Soc. Nat. Hist.* xi. p. 96 (1862) (San Domingo).

Ectopistes marginata, *G. R. Gr. Hand-list*, ii. p. 236, n. 9282 (1870).

Chamæpelia carolinensis, *Gieb. Thes. Orn.* i. p. 633 (1872).

Peristera carolinensis, *Schleg. Mus. P.-B.* Columbæ, p. 142 (1873).

Zenaedura carolinensis, *Coues, B. North-West*, p. 389 (1874).

Zenaidura macroura, *Ridgw. Pr. U.S. Nat. Mus.* viii. p. 355 (1885); *A. O. U. Check-list N. Am. Birds*, p. 180 (1886) (Haiti, San Domingo, Cuba, Porto Rico); *Cory, Auk*, 1887, p. 112; *id. B. W. Ind.* p. 213 (1889); *Thompson, Pr. U.S. Nat. Mus.* xiii. p. 523 (1891) (Manitoba); *Shufeldt, P. Z. S.* 1891, p. 194; *Bendire, Life-Hist. N. Am. Birds*, p. 139 (1892); *Dwight, Auk*, 1892, p. 135 (Pennsylvania, Alleghanies); *Scott, Auk*, 1892, p. 212 (Florida); *Attwater, l. c.* p. 233 (Texas); *Cory, l. c.* p. 272 (Cuba); *Cherrie, l. c.* p. 329 (Costa Rica).

Adult male. Above bluish, although this is overlaid with light brownish olive, leaving the blue pure only on the top of the head,

the exterior of the wings, and the upper surface of the tail, which is even slightly tinged with this colour. The entire head, except the vertex, the sides of the neck, and the underparts generally, light brownish red, strongly tinged with purple on the breast, becoming lighter behind and passing into brownish yellow on the anal region, tibia, and under tail-coverts; a black spot below the ear-coverts; sides of the neck with a patch of metallic purplish red; sides of the body and under surface of the wings clear light blue; innermost upper wing-coverts and scapulars spotted with black, mostly concealed; tail-feathers seen from below black, the outer web of the outermost white, the others tipped with the same, the colour becoming more and more bluish to the innermost, which is brown; seen from above there is the same gradation from white to light blue in the tips; the rest of the feather, however, is blue, with a bar of black anterior to the light tip; in the sixth feather the colour is uniform bluish, with this bar; the seventh is without the bar: "bill black; iris brown; bare skin around eye livid bluish; feet lake-red." Length about 12·5 inches, wing 5·75, tail 5·7, bill 0·58, tarsus 0·75, middle toe without nail 0·82.

Female. A little smaller; not purplish below, the rich colour replaced by greyish brown like the back, but paler; head and neck with little of the glaucous blue shade and less iridescent.

Young. "Like the female, but at an early age the velvety black spots and iridescence are wanting and the general tone is quite grey; many feathers with whitish edging, as in the Wild Pigeon (*Ectopistes migratorius*), with which not only the colours, but the sexual and juvenile differences are thus closely corresponding" (*Coues*).

Hab. North America, from Southern Maine, Southern Canada, and Oregon, south to Panama and the West Indies.

Some specimens from Central America are less purple, and more golden on the sides of the neck.

a, b. Ad. sk.	N. America.	Hardwicke Bequest.
c, d. Ad. sk.	49th Parallel, May, June.	N. Amer. Boundary Commission [P.].
e–h. ♂ ♀ ad. sk.	W. side Rocky Mountains.	J. K. Lord, Esq. [P.].
i. ♀ ad. sk.	Wankegan, Illinois, April.	Salvin-Godman Coll.
k. ♂ ad. sk.	Prov. Utah, Aug. (*H. W. Henshaw*).	Salvin-Godman Coll.
l, m. ♂ ad. et ♀ pull. sk.	Colorado Springs, June (*H. W. Henshaw*).	Salvin-Godman Coll.
n. [♀] ad. sk.	East Hampton, Mass., Oct.	Salvin-Godman Coll.
o. ♂ ad. sk.	New Haven, May (*A. J. Dayan*).	Salvin-Godman Coll.
p. ♂ ad. sk.	Throckmorton's Swamp, Dist. of Columbia, April (*E. Coues*).	Salvin-Godman Coll.
q. ♀ ad. sk.	Haws Branch, D.C., March.	Salvin-Godman Coll.
r–z. ♂ ♀ ad. et pull. sk.	Washington, District of Columbia, March to May and Sept. (*H. W. Henshaw*).	Salvin-Godman Coll.

a'. ♂ ad. sk.	Aiken, S. Carolina (*C. H. Merriam*).	Salvin-Godman Coll.
b'. ♀ juv. sk.	Melbourne, Florida, Sept. (*W. Hoxie*).	Salvin-Godman Coll.
c'. ♂ ad. sk.	Brownsville, Texas, April (*F. B. Armstrong*).	Salvin-Godman Coll.
d'–o'. ♂ ♀ ad. et imm. sk.	Corpus Christi, Texas, May, Sept. to Dec. (*F. B. Armstrong*).	Salvin-Godman Coll.
p'. ♀ ad. sk.	Hidalgo, Texas, April (*F. B. Armstrong*).	Salvin-Godman Coll.
q'. [♀] imm. sk.	Hollister, California, Nov. (*H. W. Henshaw*).	Salvin-Godman Coll.
r'–w'. ♂ ♀ ad. sk.	Ballena, San Diego, Co. California, March, May, June (*F. Stephens*).	Salvin-Godman Coll.
x'. ♂ ad. sk.	Yaleta, Sonora, Mexico, May (*W. Lloyd*).	Salvin-Godman Coll.
y'. ♂ imm. sk.	Atotonilco, Mexico, July (*Ferrari-Perez*).	Salvin-Godman Coll.
z', a''. ♂ ad. sk.	Pesqueria Grande, N. Leon, Mexico, May (*F. B. Armstrong*).	Salvin-Godman Coll.
b'', c''. ♂ ad. sk.	Topo Chico, N. Leon, Mexico, March, April (*F. B. Armstrong*).	Salvin-Godman Coll.
d'', e'', f''. ♂ ad. sk.	Hacienda de Las Escobas, N. Leon, Mexico, April, May (*F. B. Armstrong*).	Salvin-Godman Coll.
g''. ♂ ad. sk.	Hacienda de Los Treviños, N. Leon, Mexico, May (*F. B. Armstrong*).	Salvin-Godman Coll.
h'', i''. ♀ imm. et juv. sk.	Aguas Calientes, Mexico, Aug. (*W. B. Richardson*).	Salvin-Godman Coll.
k', l'. ♂ ♀ ad. sk.	Plains of San Luis Potosi, Mexico, July (*W. B. Richardson*).	Salvin-Godman Coll.
m''–p''. ♂ ♀ ad. sk.	Aldama, Tamaulipas, March (*W. B. Richardson*).	Salvin-Godman Coll.
q''. [♀] ad. sk.	Soto la Marina, Tamaulipas, April (*W. B. Richardson*).	Salvin-Godman Coll.
r''. ♂ ad. sk.	Tampico, Mexico, Feb. (*W. B. Richardson*).	Salvin-Godman Coll.
s''. ♀ ad. sk.	Tamesi, near Tampico, Mexico, March (*W. B. Richardson*).	Salvin-Godman Coll.
t''. ♀ ad. sk.	Zapotlan, Jalisco, Mexico, Dec. (*W. B. Richardson*).	Salvin-Godman Coll.
u'', v''. ♂ ♀ ad. sk.	Zacoalco, Jalisco, Mexico, March (*W. B. Richardson*).	Salvin-Godman Coll.
w''. ♂ ad. sk.	Bolaños, Jalisco, Mexico, Feb. (*W. B. Richardson*).	Salvin-Godman Coll.
x''. ♂ ad. sk.	Jerez, Zacatecas, Mexico, Sept. (*W. B. Richardson*).	Salvin-Godman Coll.
y''. ♂ ad. sk.	Huipulco, Valley of Mexico, April (*Ferrari-Perez*).	Salvin-Godman Coll.
z''. ♂ ad. sk.	S. Miguel Molino, Mexico, Feb. (*Ferrari-Perez*).	Salvin-Godman Coll.

a^3, b^3. ♂ ad sk.	Oaxaca, Mexico, March (*Trujillo*).	Salvin-Godman Coll.
c^3, d^3. ♀ ad. sk.	Villa Alta, Oaxaca, Mexico, March (*Trujillo*).	Salvin-Godman Coll.
e^3. ♂ ad. sk.	Tehuantepec, Mexico, Feb. (*W. B. Richardson*).	Salvin-Godman Coll.
f^3, g^3. Ad. et juv. sk.	Mexico.	Purchased.
h^3. Ad. st.	Mexico.	Purchased.
i^3. ♀ ad. sk.	Guatemala.	Gould Coll.
k^3, l^3. ♂ ♀ ad. sk.	Dueñas, Guatemala (*O. S.*).	Salvin-Godman Coll.
m^3, n^3. ♂ ad. sk.	San Martin, Quezaltenango, Guatemala, Oct. (*W. B. Richardson*).	Salvin-Godman Coll.
o^3. ♀ ad. sk.	Cozumel I., Yucatan, Jan. (*G. F. Gaumer*).	Salvin-Godman Coll.
p^3. ♀ ad. sk.	San José, Costa Rica (*M. L. Calleja*).	Salvin-Godman Coll.
q^3. [♀] ad. sk.	San José, Costa Rica, Jan. (*J. Carmiol*).	Salvin-Godman Coll.
r^3, s^3. ♂ ♀ ad. sk.	Calobre, Veragua (*Arcé*).	Salvin-Godman Coll.
t^3. ♂ ad. sk.	Volcan de Chiriqui (*Arcé*).	Salvin-Godman Coll.
u^3, v^3, w^3. ♂ ad. sk.	San Christobal, Cuba (*G. F. Gaumer*).	Salvin-Godman Coll.
x^3. Ad. sk.	Hayti.	Baron Maltzan [C.].
y^3. Imm. sk.	No locality.	

2. Zenaidura clarionensis.

Zenaidura clarionensis, *Towns. Pr. U.S. Nat. Mus.* xiii. p. 133 (1890) (Clarion Isl.) (types examined).

Similar to *Z. carolinensis*, from which it differs in being smaller, although with larger bill and feet, and in having the upper parts olive-brown instead of olive-grey. Total length about 10·75 inches, wing 5·5, tail 4·8, bill 0·67, tarsus 0·9, middle toe without nail 0·98.

The *male*, as in the allied species, has the forehead, sides of the head, and underparts vinous; while the *female* has the same parts pale brown, without vinous tinge.

Hab. Clarion Island, off west coast of Mexico.

3. Zenaidura graysoni.

Zenaidura graysoni, *Baird, MS.*; *Lawr. Ann. Lyc. N. Y.* x. p. 17 (1871) (Socorro Isl.); *Grayson, Pr. Bost. Soc. N. H.* xiv. p. 299 (1871); *Lawr. Mem. Bost. Soc. N. H.* ii. p. 304 (1874); *Salv. Ibis*, 1874, p. 312; *B., B., & R. N. Am. B.* iii. p. 382 (1874); *Gieb. Thes. Orn.* iii. p. 769 (1877); *Towns. Pr. U.S. Nat. Mus.* xiii. p. 135 (ad.) (1890) *.

Adult. Upper parts brown; sides of the neck with a patch of

* Thanks to the authorities of the Smithsonian Institution, I have seen the adult bird described by Mr. Townsend, and from it I have taken my description.

metallic coppery red; a black spot below the ear-coverts; the inner upper wing-coverts, some of the scapulars and inner secondaries with black spots; occiput dark grey; forehead, sides of the head, throat, and lower parts rufous cinnamon; sides, axillaries, and under wing-coverts grey; quills brown; two central tail-feathers brown, the lateral ones grey, with the basal portion of the outer web brown, the outer one has also the outer web grey; all the lateral feathers have the apical portion grey and an irregular black band between it and the basal portion: "bill black; iris, feet, and legs red" (*C. H. Townsend*). Total length about 11 inches, wing 5·8, tail 4·8, bill 0·65, tarsus 1 05.

Hab. Socorro Islands.

2. ZENAIDA.

	Type.
Zenaida, *Bp. Comp. List*, p. 41 (1838)	Z. amabilis.
Stenurœna (subgen.), *Rchnb. Tauben*, i. p. 20 (1862) ..	Z. stenura.
Platypterœna (subgen.), *Rchnb. Tauben*, i. p. 20 (1862).	Z. pentheria (=ruficauda?).

Range. From Yucatan, and from Florida Keys through the Antilles, to South America, as far as Chili.

Key to the Species.

a. Secondaries conspicuously tipped with white, forming a terminal band.
  a'. Abdomen pale vinous, changing into white on the lower part and on the under tail-coverts ..... *aurita*, p. 380.
  b'. Abdomen and under tail-coverts dark vinous.
    a''. Upper parts chocolate-brown ..... *amabilis*, p. 382.
    b''. Upper parts lighter and paler, olive-brown ..... *yucatanensis*, p. 384.
b. Secondaries with no white band at the tip.
  c'. Terminal portion of the outer tail-feathers white..... *auriculata*, p. 384.
  d'. Terminal portion of the lateral tail-feathers more or less rufous.
    c''. Terminal portion of the lateral tail-feathers decidedly rufous.
      a'''. Larger: wing 6·3 inches; abdomen and under tail-coverts cinnamon, with no vinous tinge..... *ruficauda*, p. 387.
      b'''. Smaller: wing 5·4 inches; all the lower parts rufous, with a distinct vinous tinge ..... *vinaceo-rufa*, p. 389.
    d''. Terminal portion of the lateral tail-feathers pale vinaceous, fading into almost white on outer feather ..... *jessiœ* *, p. 389.

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* Blue Partridge, *Gosse, B. Jam.* p. 324 (1847).
Zenaida? plumbea, *Gosse, Illustr. B. Jam.* pl. 85 (1849): *Rchnb. Syn. Av.*

1. Zenaida aurita.

Le Pigeon de la Martinique, *Briss. Orn.* i. p. 103, sp. 14 (1760).
Columba martinicana, *Briss. op. cit.* p. 104 (1760).
Columba martinica, var. β, *Gm. S. N.* i. 2, p. 781, n. 24, var. β (1788) (syn. emend.); *Lath. Ind. Orn.* ii. p. 595, n. 7, var. β (1790) (syn. emend.); *Vieill. N. D.* xxvi. p. 351 (1818).
Columba aurita, *Temm. & Knip, Pig.* i. fam. sec. p. 60, pls. 25 (ad.), 25 bis* (young?) (1808–11) (Martinica); *Temm. Pig. et Gallin.* i. pp. 247, 467 (part.) (1813); *Steph. Gen. Zool.* xi. p. 51 (part.) (1819); *Desm. Dict. Sc. Nat.* xl. p. 331 (1826); *Less. Compl. de Buff., Ois.* viii. p. 60 (part.) (1837); *id. op. cit.* 2nd ed. p. 285 (part.) (1838); *Gulliv. P. Z. S.* 1875, p. 489.
? Columba leucoptera, part., *Vieill. N. D.* xxvi. p. 351 (1818).
Columba castanea, *Wagl. Syst. Av.* Columba, sp. 77 (1827).
Zenaida aurita, *G. R. Gr. Gen. B.* ii. p. 475, n. 4 (1845) (excl. syn.); *Rchnb. Syn. Av.* ff. 1413–14 (1847); *G. R. Gr. Hand-list*, ii. p. 241, n. 9357 (1870).
Peristera castanea, *G. R. Gr. Gen. B.* ii. p. 476, n. 16 (1845).
Zenaida martinicana, *Bp. Consp. Av.* ii. p. 82 (1854) (*ex Briss.*); *id. Compt. Rend.* xl. pp. 97, 220, n. 243 (1855); *id. Coup d'œil Ordre Pig.* pp. 41, 58, n. 243 (1855); *Rchnb. Tauben*, i. p. 21, t. 254. ff. 1413–14 (1862); *Taylor, Ibis*, 1864, p. 171 (Dominica, Portorico); *Sclat. & Salv. Nomencl. Av. Neotrop.* p. 132, n. 2 (1873); *Garrod, P. Z. S.* 1874, pp. 250, 256; *Lawr. Pr. U.S. Nat. Mus.* i. pp. 196, 487 (1878) (Barbuda, Antigua, Guadeloupe, Dominica, Martinica, St. Vincent, Grenada); *Sclat. P. Z. S.* 1879, p. 765 (Montserrat); *Lister, Ibis*, 1880, p. 43 (St. Vincent); *Allen, Bull. Nutt. Orn. Club*, v. p. 169 (1880) (St. Lucia); *Grisdale, Ibis*, 1882, p. 492 (Montserrat); *Sclat. List Vert. An.* 8th ed. p. 455 (1882) (Union Island, one of the Grenadines, &c.); *Cory, List B. W. Ind.* p. 24 (1885); *Wells, Pr. U.S. Nat. Mus.* 1886, p. 624 (Grenada); *id. List B. Grenada*, p. 7 (1886); *Cory, Auk*, 1887, p. 114; *id. B. W. Ind.* p. 215 (1889); *Sclat. P. Z. S.* 1889, p. 326 (Dominica), 1892, p. 499 (Anguilla).
Zenaida bimaculata, *G. R. Gr. MS. Mus. Brit.*; *id. List B. Brit. Mus.* Columbæ, p. 47 (Barbadoes) (1856); *Bp. Compt. Rend.* xl. p. 97 (1855) (Bermuda †); *id. Coup d'œil Ordr. Pig.* p. 41 (1855); *id.*

Columbariæ, *Novit.* t. 245. f. 2590 (1851); *A. & E. Newt. Handb. Jam.* p. 114 (1881).
Metriopelia plumbea, *Bp. Consp Av.* ii. p. 76 (1854); *id. Compt. Rend.* xl. pp. 24, 220, n. 226 (1855); *id. Coup d'œil Ordre Pig.* pp. 41, 58, n. 226 (1855); *id. Compt. Rend.* xliii. p. 945 (1856).
Metriopeleia plumbea, *Rchnb. Tauben*, i. p. 18, t. 245. f. 2590 (1862), ii. p. 194, n. 34 (1862).
Chamæpelia plumbea, *Gieb. Thes. Orn.* i. p. 635 (1872).

The figure of this bird in Gosse's 'Illustrations' is taken from an unpublished drawing by a Mr. Robinson. It is entirely of a bluish lead-colour; the secondaries have a black speculum and are tipped with white; also the lateral tail-feathers are tipped with white.

It seems that Gosse only knew this bird from having heard woodsmen speak of it, and he remarks that no doubt it is "a ground pigeon." It has the appearance of a *Zenaida*, but it remains a doubtful species.

* Pl. 25 *bis* seems to belong to a different species.

† It seems that the locality *Bermuda* rests on a mistake made by Bonaparte.

Compt. Rend. xliii. pp. 946, 949 (1856); *G. R. Gr. Hand-list*, ii. p. 241, n. 9351 (1870) (Barbadoes).
Columba (Zenaida) martinicana, *Sundev. Œfv. K. Vet.-Ak. Förh.* 1869, p. 585 (St. Bartholomew).
Chamæpelia martinicana, *Gieb. Thes. Orn.* i. p. 634 (1872) (syn. emend. ?).
Zenaida castanea, *Ridgw. Man. N. Am. Birds*, p. 213 (1887).
? Zenaida amabilis, *Feild.* (*nec Bp.*), *Ibis*, 1889, p. 477 (Barbadoes).

Adult male. Upper parts brown; head vinous rufous, dusky on the occiput: on the sides of the lower part of the hind neck two patches of metallic amethyst, almost joining in the middle; chin and middle of the throat white; sides of the head and lower throat rufous cinnamon; two steel-blue spots on the sides of the head, a small one behind the eyes, above the ear-coverts, and a larger one below them; breast bright vinous; middle of the abdomen and under tail-coverts white, with a slight vinous mark; flanks, axillaries, and under wing-coverts light grey; quills black, the primaries with narrow whitish edges; a conspicuous white band at the tip of the secondaries; inner upper wing-coverts, some of the scapularies, and the inner secondaries with black spots, some of them edged with white; two central tail-feathers brown, with an almost obsolete dusky band towards the apical part; a distinct black band runs through the lateral tail-feathers, which have a broad apical light band, white on the outer ones, changing into grey on the inner ones: the outer feather has the base white on the outer web, grey on the inner one; the next pair have the base entirely grey, and the remainder have the base brown on the outer web, grey on the inner one; tail below grey at the base, black about the middle, white-grey at the apical part: bill black; "legs and feet bright red" (*Taylor*). Total length about 11 inches, wing 6·6, tail 4·5, bill 0·62, tarsus 1·05.

Female. Similar to the male, but somewhat smaller, and with the metallic amethystine patches on the sides of the hind neck less extended.

Young. Duller, no metallic patches on the neck; the upper wing-coverts with lighter edges.

Hab. Lesser Antilles, and also St. Croix (*Cory, in litt.*).

a. ♀ ad. sk.	Anguilla Isl.	W. R. Elliot [C.].
b. Ad. sk.	Montserrat, W. Indies (*Sturge*).	Salvin-Godman Coll.
c, d. ♂ ad. sk.	Dominica, W. Indies.	G. A. Ramage, Esq. [C.].
e. Ad. sk.	Barbadoes, W. Indies.	Sir R. Schomburgk [P.]. (Type of *Z. bimaculata*, G. R. Gr.)
f–i. ♂ ♀ ad. et juv. sk.	Mustique, Grenadines, W. Indies (*D. W. Smith*).	Salvin-Godman Coll.
k–n. ♂ ♀ ad. sk.	Grenada, W. Indies (*D. W. Smith*).	Salvin-Godman Coll.
o. Ad. sk.		J. Rocke, Esq. [P.].
p. Ad. st.		Zoological Society's Coll.

2. Zenaida amabilis.

Columba zenaida, *Bp. Journ. Ac. Nat. Sc. Philad.* v. p. 30 (1825) (Florida Keys); *id. Zool. Journ.* iii. p. 53 (1827) (Havanna); *Bull. Univ. des Sc.* x. p. 400 (1827); *Bp. Am. Orn.* ii. pl. 15. f. 2 (1828); *Wagl. Isis*, 1829, p. 744; *Nutt. Man.* i. p. 625 (1832); *Aud. Orn. Biogr.* ii. p. 354, v. p. 558, pl. 162 (1834); *Less. Compl. de Buff., Ois.* viii. p. 65 (1837); *id. op. cit.* 2nd ed. p. 287 (1838); *D'Orb. in La Sagra's Hist. Nat. Cuba, Ois.* p. 177 (large ed. p. 130) (1840); *Aud. B. Am.* v. p. 1, pl. 281 (1842); *Denny, P. Z. S.* 1847, pp. 37, 39; *Bryant, Pr. Bost. Soc. N. H.* x. p. 257 (1866); *Gundl. J. f. O.* 1871, pp. 266, 277 (Cuba); *Gulliv. P. Z. S.* 1875, p. 489.

Zenaida amabilis, *Bp. Comp. List*, p. 41 (1838); *G. R. Gr. List Gen. B.* p. 58 (1840); *id. Gen. B.* ii. p. 475, n. 1 (1845); *Gosse, B. Jam.* p. 307 (1847); *Rchnb. Syn. Av.* f. 1412 (1847); *id. Syn. Av.* Columbariæ, *Novit.* t. 255. ff. 2867–68 (1851) (*ex Audub.*); *Gosse, Nat. Soj. in Jam.* p. 174 (1851); *Bp. Consp. Av.* ii. p. 82 (1854); *id. Compt. Rend.* xl. pp. 47, 200, n. 242 (1855); *id. Coup d'œil Ordre Pig.* pp. 41, 58, n. 242 (1855); *id. Compt. Rend.* xliii. p. 946 (1856); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 47 (1856); *Gundl. & Cab. J. f. O.* 1856, p. 111; *Baird, Birds N. Am.* p. 602 (1858); *id. List*, n. 449 (1858); *Bryant, Pr. Bost. Soc. N. H.* vii. p. 120 (1859); *A. & E. Newt. Ibis*, 1859, p. 253; *Brewer, Pr. Bost. Soc. N. H.* vii. p. 307 (1860); *Cass. Pr. Ac. Nat. Sc. Philad.* 1860, p. 378; *Sclat. P. Z. S.* 1861, p. 80; *Albrecht, J. f. O.* 1861, p. 55; *Gundl. J. f. O.* 1861, pp. 336, 416; *Rchnb. Tauben*, i. p. 21, t. 254 f. 1412, t. 255. ff. 2867–68 (1862); *Albrecht, J. f. O.* 1862, p. 204; *March, Pr. Ac. Nat. Sc. Philad.* 1863, p. 302; *Lawr. Ann. Lyc. N. Y.* viii. p. 99 (1864) (Sombrero); *Gundl. Rep. Fisico-Nat. Cuba*, i. p. 301 (1865); *Sundev. Œfv. K. Vet.-Ak. Förh.* 1869, p. 601 (Portorico); *G. R. Gr. Hand-list*, ii. p. 241, n. 9350 (1870); *Sclat. & Salv. Nomencl. Av. Neotrop.* p. 132, n. 1 (1873); *Pelz. Ibis*, 1873, p. 34 (Jamaica); *Coues, Check-list*, n. 372 (1874); *Gundl. J. f. O.* 1874, pp. 298, 312, 1878, pp. 161, 186 (Porto Rico); *id. Anal. Soc. Esp. Hist. Nat.* vii. p. 346 (1878); *Cory, B. Bahama I.* p. 138 (1880); *Ridgw. Catal.* n. 462 (1880); *Maynard, B. E. N. Am.* p. 339 (1881); *A. & E. Newt. Handb. Jamaica*, p. 114 (1881); *Salv. Cat. B. Strickl. Coll.* p. 584 (1882); *Coues, Check-list N. A. Birds*, p. 92, n. 545 (1882); *Sclat. List Vert. An.* 8th ed. p. 455 (1883); *Coues, Key N. Am. B.* p. 569, n. 545 (1884); *Cory, B. Haiti & San Domingo*, p. 128 (1885); *id. List B. W. Ind.* p. 24 (1885); *id. Auk*, 1887, p. 113; *Tristr. Cat. Coll. B.* p. 39 (1889).

Chamæpelia amabilis, *Gieb. Thes. Orn.* i. p. 632 (1872).

Peristera zenaida, *Schley. Mus. P.-B.* Columbæ, p. 140 (1873) (Jamaica).

Zenaida zenaida, *Ridgw. Pr. U.S. Nat. Mus.* viii. p. 355 (1885); *A. O. U. Check-list N. Am. B.* p. 180 (1886); *Cory, B. W. Ind.* p. 214 (1889); *Scott, Auk*, 1892, p. 123 (Jamaica); *Bendire, Life-Hist. N. A. Birds*, p. 143 (1892); *Chapm. Bull. Am. Mus. N. H.* iv. p. 292 (1892).

Zenaida richardsoni, *Cory, Auk*, iv. pp. 7, 114 (1887) (Little Cayman)*; *id. B. W. Ind.* p. 215 (1889).

* Mr. Cory, writing to Mr. Salvin, says that he now believes that the type of *Z. richardsoni* is an immature and rather odd-coloured specimen of *Z. zenaida*.

Adult male. Upper parts brown, slightly tinged with rufescent on the upper tail-coverts; head dull vinous, darker on the occiput; cheeks and throat rufescent; chin whitish; two steel-blue spots, one above and one below the ear-coverts; breast, abdomen, and under tail-coverts deep vinous; sides, axillaries, under wing-coverts, and sides of the rump grey; some black spots on the innermost upper wing-coverts, scapulars, and inner secondaries; quills black, primaries with narrow whitish edges; a conspicuous white band at the tip of the secondaries; central tail-feathers brown, with an obsolete dusky band about the apical third; lateral tail-feathers grey, with a subapical black band; the outer webs of the inner lateral feathers partly brown: "bill black, carmine-red near the gape; feet carmine-red; iris dark brown" (*Gundlach*). Total length about 11 inches, wing 6·3, tail 3·8, bill 0·65, tarsus 1.

Hab. Florida Keys, Bahamas, Cuba, Isle of Pines, Jamaica, Little and Grand Cayman (?), Haiti and San Domingo, Mona, Porto Rico, Tortola, St. Thomas, Virgin Gorda, St. Croix, St. Eustatius, Barbuda, and Antigua.

According to Mr. Cory (*in litt.*), "specimens from the latter localities (St. Eustatius, Barbuda, and Antigua) are apparently intermediate in colour between *Z. castanea* (=*aurita*) and *Z. zenaida*."

Specimens from Virgin Gorda and St. Thomas are brighter than the others.

a, b. Ad. sk.	San Cristobal, Cuba.	Salvin-Godman Coll.
c. ♂ ad. sk.	Monte Verde, Cuba, Nov. (*C. Wright*).	Salvin-Godman Coll.
d, e, f. Ad. st. et juv. sk.	Jamaica.	Gould Coll.
g. Ad. st.	Jamaica.	J. Gosse, Esq. [C.].
h. Ad. st.	Jamaica.	Purchased.
i. Ad. sk.	Jamaica (*W. Osburn*).	Salvin-Godman Coll.
k. Ad. st.	San Domingo.	Sallé Coll.
l. Ad. sk.	San Domingo.	Purchased.
m. Ad. sk.	Porto Rico, W. Indies (*R. Swift*).	Salvin-Godman Coll.
n, o. Ad. sk.	St. Thomas, W. Indies.	Purchased.
p. Ad. sk.	St. Thomas, W. Indies (*R. Swift*).	Smithsonian Institution [P.].
q. ♂ ad. sk.	Virgin Gorda, W. Indies, Dec. (*C. B. Cory*).	Salvin-Godman Coll.
r. Skeleton.	[N. America.]	Salvin-GodmanColl.*

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* ZENAIDA SPADICEA.

Zenaida spadicea, *Cory, Auk*, iii. pp. 498, 502 (1886) (Grand Cayman), iv. p. 114 (1887); *id. B. W. Ind.* p. 215 (1889).

"General upper plumage dark olive-brown, rufous brown on the forehead, and showing a tinge of very dull purple on the crown, apparently wanting in some specimens; a subauricular spot of dark metallic blue; sides of the neck and nape rich metallic purple; chin pale buff, shading into rich rufous chestnut on the throat and breast; belly brown, showing a slight vinaceous tinge;

3. Zenaida yucatanensis.

Zenaida amabilis, *Boucard* (*nec Bp. et syn. emend.*), *P. Z. S.* 1883, p. 458 (Yucatan); *Salvin, ibid.*; *id. Ibis*, 1889, p. 377 (Holbox I., Mugeres I., Yucatan), 1890, pp. 89, 91, 92, 93.

Similar to *Z. amabilis*, but with the brown colour of the upper parts paler and more greyish, and with the rufous colour of the throat duller and washed with pale brown.

Male with rufous vinous underparts; *female* with the vinaceous colour of the same parts washed with grey or with pale brown.

Hab. Coast of Yucatan, and Cozumel, Mugeres, and Holbox Islands.

a. ♂ ad. sk.	Rio Lagartos, N. Yucatan, June (*G. F. Gaumer*).	Salvin-Godman Coll. (Type of species.)
b–k. Ad. sk.	Cozumel I., Yucatan (*G. F. Gaumer*).	Salvin-Godman Coll.
l–t. ♂ ♀ ad. sk.	Holbox I., Yucatan, Dec. (*G. F. Gaumer*).	Salvin-Godman Coll.
u, *v*. Ad. sk.	Mugeres I., Yucatan, Dec. (*G. F. Gaumer*).	Salvin-Godman Coll.

4. Zenaida auriculata.

Paloma parda manchada, *D'Azara, Apunt.* i. p. 17, n. 322 (1805).

Pigeon brun tacheté, *D'Azara, Voy.* (*Sonn. ed.*) iii. p. 132, n. 322 (1809).

Columba aurita, part., *Temm. Pig. et Gallin.* i. pp. 247, 467 (1813); *Steph. Gen. Zool.* xi. p. 51 (part.) (1819).

Columba maculata, *Vieill.* (*nec Gm.*) *Enc. Méth.* i. p. 376 (1823); *Burm. La Plata Reise*, i. p. 306 (1861).

Columba meridionalis, *King* (*nec Lath.*), *Zool. Journ.* iv. p. 92 (1828) (Straits of Magellan); *Less. Bull. Sc. Nat.* xv. p. 151 (1828); *Wagl. Isis*, 1829, p. 743 (nota); *Less. Compl. de Buff., Ois.* viii. p. 99 (1837); *id. op. cit.* 2nd ed. p. 296 (1838); *Sclat. P. Z. S.* 1867, pp. 330, 339; *Gieb. Thes. Orn.* i. p. 747 (1872).

Columba aurita, *Licht.* (*nec Temm.*) *Doubl.* p. 66 (1823) (Monte Video); *Wagl. Syst. Av.* Columba, sp. 70 (1827) (syn. emend.); *Less. Compl. de Buff., Ois.* viii. p. 60 (part.) (1837); *id. op. cit.* 2nd ed. p. 285 (part.) (1838); *Darw. Voy. 'Beagle,' Zool.* p. 115 (1841); *Tsch. Faun. Per., Aves*, p. 275 (1844); *Meyen in Mus. Berol., fide Bp. Compt. Rend.* xliii. p. 946 (1856).

Zenaida aurita, *Fraser* (*nec Temm.*), *P. Z. S.* 1843, p. 115 (Chile); *Tsch. Faun. Per., Aves*, p. 45 (1844); *G. R. Gr. Gen. B.* ii. p. 475, n. 4 (part.) (1845); *Hartl.* (*nec auct.*) *Ind. Azara Apunt.* p. 20,

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upper surface of tail brown, the feathers showing a subterminal band of black, and all the feathers, except the central ones, tipped with grey; lateral tail-feathers tipped with grey; primaries dark brown, almost black, faintly tipped with dull white; the secondaries broadly tipped with white; under wing-coverts grey: bill black: feet red. Length 9·60 inches, wing 6, tail 3·75, tarsus 0·75, bill 0·50." (*Cory.*)

Hab. Grand Cayman, West Indies.

Mr. Cory does not state in what respect this species differs from *Z. zenaida*, and although in a letter to Mr. Salvin he writes that "it is a fine species, not at all like any W. I. species," I have failed to discover how it differs from *Z. amabilis*.

n. 322 (1847); *G. R. Gr. Gen. B.* App. p. 24 (1849); *Mart. J. f. O.* 1875, p. 442; ? *MacFarl. Ibis*, 1887, p. 202 (Coquimbo).

Peristera auriculata, *Des Murs, in Gay, Hist. de Chile*, i. p. 381, pl. 6 (1847); *Hartl. Naumannia*, 1853, p. 221.

Peristera chrysauchenia, *Rchnb. Syn. Av.* f. 1429 (1847); *G. R. Gr. Gen. B.* App. p. 24 (1849).

Zenaida chilensis, "*Bp.*," *Rchnb. Syn. Av.* Columbariæ, *Novit.* t. 245 *b.* ff. 3529–30 (1851); *Bp. Consp.* ii. p. 82, *in syn.* Z. auriculatæ (1854); *id. Compt. Rend.* xliii. p. 946 (1854).

Chlorœnas meridionalis, *Bp. Consp. Av.* ii. p. 52 (1854) (*ex King*; *id. Compt. Rend.* xxxix. p. 1108 (1854), xl. p. 218, n. 144 (1855); *id. Coup d'œil Ordre Pig.* pp. 24, 56, n. 144 (1855); *Rchnb. Tauben*, i. p. 61 (1862); *G. R. Gr. Hand-list*, ii. p. 235, n. 9279 (1870).

Zenaida auriculata, *Bp. Consp. Av.* ii. p. 82 (1854); *id. Compt. Rend.* xl. pp. 97, 220, n. 244 (1855); *id. Coup d'œil Ordre Pig.* pp. 41, 58, n. 244 (1855); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 47 (1856); *Bp. Compt. Rend.* xliii. p. 946 (1856); *id. Icon. Pig.* pl. 133 (1857); *Rchnb. Tauben*, i. p. 21, t. 245 *b.* ff. 3529–30 (1862); *Pelz. Novara Reis., Vög.* p. 109 (1865); *Sclat. P. Z. S.* 1867, pp. 330, 339; *Sclat. & Salv.* 1867, p. 989 (Peru), 1868, pp. 176, 520; *G. R. Gr. Hand-list*, ii. p. 241, n. 9353 (1870); *Sclat. P. Z. S.* 1870, p. 665; *Tacz. P. Z. S.* 1874, p. 555; *id. P. Z. S.* 1880, p. 213 (N. Peru); *Sclat. List Vert. An.* 8th ed. p. 456 (1883); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 284 (1889) (Chili).

Zenaida maculata, *Bp. Consp. Av.* ii. p. 82 (1854); *id. Compt. Rend.* xliii. pp. 97, 220, n. 245 (1855); *id. Coup d'œil Ordre Pig.* pp. 42, 58, n. 245 (1855); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 47 (1856); *Bp. Compt. Rend.* xliii. p. 946 (1856); *Burm. Syst. Ueb. Th. Bras., Vög.* ii. p. 302 (1856); *id. J. f. O.* 1860, p. 259; *id. La Plata Reise*, ii. p. 497 (1861); *Rchnb. Tauben*, i. p. 21, t. 257. f. 1429 (1862), ii. p. 164 (1862); *Sclat. & Salv. P. Z. S.* 1867, p. 591 (Mexiana), 1868, p. 143 (Conchitas); *Sternb. J. f. O.* 1869, pp. 193, 273 (Buenos Ayres); *Holtz, J. f. O.* 1870, p. 19; *G. R. Gr. Hand-list*, ii. p. 241, n. 9352 (1870); *Pelz. Orn. Bras.* pp. 276, 450, liv (1871); *Layard, Ibis*, 1873, p. 395 (Para); *Sclat. & Salv. Nomencl. Av. Neotrop.* p. 132, n. 3 (1873); *Hudson, P. Z. S.* 1874, p. 170 (Patagonia); *Sclat. & Salv. P. Z. S.* 1874, p. 678 (Peru); *Cab. J. f. O.* 1874, p. 230; *Durnf. Ibis*, 1876, p. 163, 1877, p. 193; *Sclat. & Salv. P. Z. S.* 1879, p. 639 (Bolivia); *Gibson, Ibis*, 1880, p. 8; *Sharpe, P. Z. S.* 1881, p. 9 (Coquimbo); *White, P. Z. S.* 1882, p. 526 (Argentine); *Salv. Cat. B. Strickl. Coll.* p. 548 (1882); *Sclat. List Vert. An.* 8th ed. p. 456 (1883); *Berl. & Tacz. P. Z. S.* 1883, p. 575 (Guayaquil), 1884, p. 311; *Barrows, Auk*, 1884, p. 275; *Gibson, Ibis*, 1885, p. 282 (Uruguay); *Tacz. Orn. Pér.* iii. p. 237 (1886); *Ridgw. Pr. U.S. Nat. Mus.* x. p. 528 (1887); *Berl. J. f. O.* 1887, pp. 34, 124; *Tristr. Cat. Coll. B.* p. 39 (1889); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 284 (1889) (Brazil); *Allen, Bull. Am. Mus. N. H.* ii. p. 105 (1889) (Bolivia); *Sclat. Argent. Orn.* ii. p. 141 (1889); *Holland, Ibis*, 1890, p. 425; *Sharpe & Ridley, Journ. Linn. Soc., Zool.* xx. p. 479 (1890) (Fernando Noronha); *Frenzel, J. f. O.* 1891, p. 123; *Hartert, Kat. Vogelsamml.* p. 187 (1891); *Holland, Ibis*, 1892, p. 209.

Zenaida hypoleuca, *G. R. Gr. MS. Mus. Brit.* 1854; *Bp. Consp. Av.* ii. p. 83 (1854) (Am. centr.?); *id. Compt. Rend.* xl. pp. 97, 220, n. 246 (1855); *id. Coup d'œil Ordre Pig.* pp. 42, 58, n. 246 (1855); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 48 (1856) (Pearl Island); *Bp. Compt. Rend.* xliii. p. 946 (1856); *Bp. Icon. Pig.*

pl. 134 (1857); *Sclat. P. Z. S.* 1858, p. 460 (Ecuador), 1860, p. 97 (Calacali); *Rchnb. Tauben*, i. p. 22 (1862), ii. p. 164 (1862); *G. R. Gr. Hand-list*, ii. p. 241, n. 9355 (1870); ? *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 284 (1889) (Ecuador).

Zenaida noronha, *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 47 (1856) (Fernando Noronha); *Bp. Compt. Rend.* xliii. pp. 946, 949 (1856); *G. R. Gr. Hand-list*, ii. p. 241, n. 9354 (1870); *Pelz. Orn. Bras.* p. 276 (note) (1871); *Ridley, Zoolog.* 1888, p. 44.

Columba (Zenaida) aurita, *Burm. J. f. O.* 1858, p. 160 (Mendoza).

Phaps (!) meridionalis, *Rchnb. Tauben*, ii. p. 166 (1862).

Chamæpelia auriculata, *Gieb. Thes. Orn.* i. p. 633 (1872).

Chamæpelia hypoleuca, *Gieb. op. cit.* p. 634 (1872).

Chamæpelia maculata, *Gieb. op. cit.* p. 634 (1872).

Chamæpelia norouha (*lege* noronha), *Gieb. op. cit.* p. 635 (1872).

Peristera maculata, *Schleg. Mus. P.-B.* Columbæ, p. 141 (1873).

Adult male. Forehead, sides of the head and neck, and breast vinous; crown and occiput grey; a black spot behind the eye, and a larger one below the ear-coverts; feathers of the sides and of the hind neck metallic purple, with golden reflections; rest of the upper parts brown-olive; on the outer webs of the inner upper wing-coverts, of the scapulars, and of the tertials many large black spots; quills brown, with a slight greyish tinge and narrow light edges on the outer webs; flanks, axillaries, and under wing-coverts light grey; vent and under tail-coverts buffish white, with a slight vinous tinge; two central tail-feathers brown-grey; the remainder grey, with the tip grey, becoming whiter and whiter towards the outer feathers, and with a black band before the light tip; the outer feather has the outer web almost entirely white; tail below black, with the base fringed with grey and the tip broadly white: "bill black; feet of a red flesh-colour" (*Burmeister*). Total length 10–9 inches, wing 6·25–5·5, tail 4·5–3·75, bill 0·6–0·55, tarsus 0·9–0·85.

Female. Smaller than the male and duller in colour; the vinous colour of the male is replaced by a dull pale brown.

Young. Has the feathers of the upper parts and breast with white mesial streaks and edges; the primaries and primary-coverts edged with rufous; no metallic gloss on the sides of the neck.

Obs. The smaller dimensions belong to the Eastern birds, and especially to those from Fernando Noronha, the largest to the Western ones; it appears to me that they are not worthy of separation.

Hab. South America, from Pearl Island to Ecuador, Peru, and Chili on the west, and from Noronha Island to Brazil, Argentine, and Patagonia on the east; probably also the Magellan Straits.

a. Ad. sk.	Pearl Island.	Capt. Kellett and Lieut. Wood [P.]. (Type of *Z. hypoleuca*, G. R. Gr.)
b, *c*. Ad. sk.	Fernando Noronha.	Capts. Burnett and Fitzroy [P.]. (Types of *Z. noronha*, Gray).
d–*l*. ♂ ♀ ad. et imm. sk.	Fernando Noronha, Aug.	H. N. Ridley, Esq. [P.].
m. Ad. sk.	Is. of Mexiana (*Wallace*).	Salvin-Godman Coll.

n. Ad. sk.	Ceara, N. Brazil (*W. Jesse*).	Salvin-Godman Coll.
o. Ad. st.	Para.	R. Graham, Esq. [P.].
p, *q*. ♂ ♀ ad. sk.	Para, Jan., Aug. (*E. L. Layard*).	Tweeddale Coll.
r. Ad. sk.	Brazil.	Purchased.
s. Ad. sk.	Brazil.	Zool. Soc. Coll.
t. ♂ ad. sk.	Matto Grosso, Brazil, July (*H. H. Smith*).	Salvin-Godman Coll.
u, *v*. ♀ ad. sk.	Matto Grosso, Brazil, July (*Natterer*).	Salvin-Godman Coll.
w, *x*. Ad. sk.	Hachapampa, Bolivia (*Buckley*).	Salvin-Godman Coll
y. Ad. sk.	Tucuman (*Burmeister*).	Salvin-Godman Coll.
z. Ad. sk.	Conchitas, Buenos Ayres, Nov. (*W. H. Hudson*).	Salvin-Godman Coll.
a'. ♂ ad. sk.	Punta Lara, Buenos Ayres, June.	H. Durnford, Esq. [C.].
b'. Juv. sk.	Quilne, Buenos Ayres, March.	H. Durnford, Esq. [C.].
c', *d'*. Ad. sk.	Ecuador (*Fraser*).	Salvin-Godman Coll.
e', *f'*. Ad. sk.	Ecuador.	H. Fraser, Esq. [C.].
g'. Ad. sk.	Ecuador (*Higgins*).	Salvin-Godman Coll.
h', *i'*. Ad. sk.	Sical, Ecuador (*Buckley*).	Salvin-Godman Coll.
k'. ♂ ad. sk.	Arequipa, S.W. Peru, June (*Whitely*).	Salvin-Godman Coll.
l'. ♂ ad. sk.	Catarindos Valley, Peru, Sept. (*Whitely*).	Tweeddale Coll.
m', *n'*. ♂ ♀ ad. st.	Islay, Peru.	H. Whitely, Esq. [C.].
o'. ♂ ad. sk.	Prov. Santiago, Chili (*Leybold*).	Salvin-Godman Coll.
p'. ♂ ad. sk.	Coquimbo, Chili, June.	Dr. Coppinger [C.].
q'. Ad. sk.	Chili.	Lord Byron [P.].
r'. Ad. sk.	Chili.	Purchased.
s'–*a''*. Ad. sk. et varieties.	Central Chili.	H. Berkeley James, Esq. [P.].
b'', *c''*, *d''*. ♀ ad. et ♂ juv. sk.	Rio Bineno, Chili, Jan.	H. Berkeley James, Esq. [P.].
e''. ♂ ad. sk.	R. Pilmaiquen, Jan.	H. Berkeley James, Esq. [P.].
f''. Skeleton.	S. America.	Purchased.

5. Zenaida ruficauda.

Zenaida ruficauda, *G. R. Gr. MS. Mus. Brit.* 1854; *Bp. Consp. Av.* ii. p. 83 (1854) (New Granada); *id. Compt. Rend.* xl. pp. 97, 220, n. 247 (1855); *id. Coup d'œil Ordre Pig.* pp. 42, 58, n. 247 (1855); *id. Compt. Rend.* xliii. p. 946 (1856); *Sclat. P. Z. S.* 1856, p. 30; *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 48 (1856); *Rchnb. Tauben*, i. p. 22 (1862); *Sclat. & Salv. P. Z. S.* 1870, p. 782 (Merida); *Pelz. Orn. Bras.* pp. 276, 450, liv (1871) (Rio Branco); *Wyatt, Ibis*, 1871, p. 383 (Colombia); *Sclat. & Salv. Nomencl. Av. Neotrop.* p. 132, n. 4 (1873); *Salv. Ibis*, 1874, p. 455; *Sclat. & Salv. P. Z. S.* 1879, p. 543 (Antioquia); *Berl. J. f. O.* 1884, p. 319, 1892, p. 96 (Bogota).

Zenaida mexicana, *Bp. Mus. Lugd.* 1849, *fide Bp. Consp. Av.* ii. p. 83 (1854).
Zenaida pentheria, *Bp. Mus. Paris*; *id. Consp. Av.* ii. p. 84 (1854) (Santa Martha); *id. Compt. Rend.* xl. pp. 98, 220, n. 249 (1855); *id. Coup d'œil Ordre Pig.* pp. 42, 58, n. 249 (1855); *Sclat. P. Z. S.* 1856, p. 30; *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 48 (1856).
Zenaida castanea, *Bp.* (*nec Wagl.*) *in Mus. Lugd. fide Bp. Compt. Rend.* xliii. p. 946 (1856).
Zenaida (Platypterœna) pentheria, *Rchnb. Tauben*, i. p. 20 (1862).
Stenurœna ruficauda, *G. R. Gr. Hand-list*, ii. p. 241, n. 9359 (1870); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 284 (1889) (Caracas, Venezuela).
Platypterœna pentheria, *G. R. Gr. Hand-l.* ii. p. 241, n. 9360 (1870).
Chamæpelia pentheria, *Gieb. Thes. Orn.* i. p. 635 (1872).
Chamæpelia ruficauda, *Gieb. Thes. Orn.* i. p. 635 (1872).
Peristera ruficauda, *Schleg. Mus. P.-B.* Columbæ, p. 141 (1873) *Salv. Ibis*, 1874, p. 455.
Peristera pentheria, *Schleg. Mus. P.-B.* Columbæ, p. 142 (1873) *Salv. Ibis*, 1874, p. 455 (=ruficauda ♂).
Zenaida bogotensis, *Lawr. Auk*, ii. p. 358 (1885) (Bogota, New Granada); *Ridgw. Pr. U.S. Nat. Mus.* x. p. 528 (1887).

Adult male. Upper parts olive-brown; forehead, sides of the head, superciliary stripes, throat, and upper breast rufous vinous, changing into rufous cinnamon on the lower breast, abdomen, and under tail-coverts; crown and occiput grey; two steel-blue spots on the sides of the head, one above, the other below the ear-coverts; two metallic patches of a bronze-amethyst colour on the sides of the neck; chin pale vinous; sides, axillaries, and under wing-coverts grey; black spots on the inner upper wing-coverts, scapularies, and inner secondaries; the outermost or marginal upper wing-coverts are greyer than the inner ones: quills brown, with narrow pale edges, the secondaries greyish brown; central tail-feathers brown-grey, the next pair grey, brownish towards the tip and with a black spot about the middle; the five outer pairs grey at the base, rufous cinnamon at the apical half, and with a black irregular bar across the middle, between the rufous and the grey part; the outer pair have the whole of the outer web rufous cinnamon; bill black. Total length about 11 inches, wing 6·3, tail 4·3, bill 0·68, tarsus 1.

Hab. Colombia, Venezuela, and Rio Branco (?).

The type of *Z. pentheria* in the Paris Museum, and a second specimen, exactly like it (Bonaparte's collection), also in the Paris Museum, are rather large specimens, perhaps males, of *Z. ruficauda*: wing 6·3 inches; abdomen and under tail-coverts rufous cinnamon.

a, *b*. Ad. sk.	Colombia.	Purchased.
c. Ad. sk.	New Granada.	Purchased.
d, *e*. Juv. sk. et ad. st.	New Granada.	Purchased. (Types of species.)
f. Ad. sk.	Vicinity of Bogota, New Granada (*Crowther*).	Salvin-Godman Coll.
g. Ad. sk.	Vicinity of Bogota, New Granada (*Trübner*).	Salvin-Godman Coll.
h, *i*. Ad. sk.	Bogota, New Granada.	Salvin-Godman Coll.

k. Ad. sk.	Medellin, U.S. of Columbia (*Salmon*).	Salvin-Godman Coll.
l. Juv. sk.	Merida, Venezuela (*Goering*).	Salvin-Godman Coll.

6. Zenaida vinaceo-rufa.

Zenaida ruficauda?, *Ridgw.* (*nec Bp.*) *Pr. U.S. Nat. Mus.* vii. p. 176 (1884) (I. of Curaçao, Venezuela).

Zenaida vinaceo-rufa, *Ridgw. ibid.* (type examined); *Berl. J. f. O.* 1892, pp. 95, 97, 102 (Curaçao and Carriacou, Grenadines); *Peters, l. c.* p. 113.

Zenaida rubripes, *Lawr. Auk*, ii. p. 357 (1885) (Grenada); *id. Pr. U.S. Nat. Mus.* 1886, p. 624; *Cory, Revised List B. W. Ind.* i. p. 24 (1886); *Wells, List B. Grenada*, p. 7 (1886); *Cory, Auk*, iii. p. 115 (1887); *Ridgw. Pr. U.S. Nat. Mus.* x. p. 528 (1887); *Cory, B. W. Ind.* p. 216 (1889); *Lawr. Auk*, 1889, p. 21.

Engyptila wellsi (*errore*), *Lawr. Pr. U.S. Nat. Mus.* 1886, p. 625 (male); *id. Auk*, 1889, p. 21.

Adult male. Very similar to *Z. ruficauda*, but smaller, of a paler colour above, and with the rufous part of the plumage, forehead, superciliary stripes, sides of the head, throat, breast, abdomen, and under tail-coverts decidedly vinous; chin and middle of the throat paler; crown and occiput tinged with grey, two steel-blue stripes, one above and the other below the ear-coverts; on the sides of the neck two patches of golden-bronze feathers, with coppery lustre; several black spots on the inner greater wing-coverts and tertials; under surface of the wings grey; central tail-feathers uniform greyish brown, the next two pairs greyish brown towards the tip and with a black band, the remainder grey at the base, rufous vinous on the apical portion, and with a black irregular bar between the rufous and the grey part; the outer pair have the outer web entirely rufous: "bill black; feet red; iris black" (*Whitely*). Total length about 9 inches, wing 5 to 5·4, tail 3, bill 0·55, tarsus 0·8.

Female. Duller, and with the forehead, sides of the head, and lower front neck tinged with pale brown, with no vinous colour.

Hab. Curaçao, Grenada, Grenadines, and British Guiana.

Specimens in the Museum of Paris from Venezuela seem to belong to the present species.

a, b, c. ♂ ♀ ad. sk.	Quonga, Brit. Guiana, Nov. (*H. Whitely*).	Salvin-Godman Coll.
d. ♂ ad. sk.	Takutu R., Brit. Guiana, April (*H. Whitely*).	Salvin-Godman Coll.
e, f. ♂ ♀ ad. sk.	Aunai, Brit. Guiana, May (*H. Whitely*).	Salvin-Godman Coll.

7. Zenaida jessiæ.

? Zenaida stenura, *G. R. Gr.* (*nec Bp.*) *List B. Brit. Mus.* Columbæ, p. 48 (1856).

Zenaida jessiæ, *Riker, MS.*; *Ridgw. Pr. U.S. Nat. Mus.* x. p. 527 (1887) (Diamantina, Lower Amazon) (type examined).

"Similar to *Z. vinaceo-rufa*, Ridgw., but terminal portion of rectrices pale vinaceous, fading into almost white on outer feather, and changing on the fifth and sixth to grey, tinged with vinaceous; head, neck, and underparts uniform vinaceous, the occiput inclining to greyish (the first with a black postocular streak and auricular spot, as in allied species). Length (skin) 8·40 inches, wing 5·20, tail 3·40, (graduated for 0·70), exposed culmen 0·57, tarsus 0·75, middle toe 0·82." (*Ridgway.*)

Hab. Lower Amazon (Diamantina).

Thanks to Mr. Ridgway, I have been able to examine the type of this species, which differs from *Z. vinaceo-rufa* as stated by him.

It is not quite certain whether the specimen in the British Museum really belongs to the present species.

a. Ad. sk. Colombia (?). Purch. of Verreaux*.

3. NESOPELIA.

Type.

Nesopelia, *Sundev. Meth. nat. Av. disp. Tent.* p. 99 (1872) ..... N. galapagoensis.

Range. Confined to the Galapagos Islands.

1. Nesopelia galapagoensis.

Colombi-Galline des Gallapagos, *Neboux, Rev. Zool.* 1840, p. 290 (St. Charles Isl.).

Zenaida galapagoensis, *Gould, Voy. Beagl., Zool.* p. 115, pl. 46 (1841); *G. R. Gr. Gen. B.* ii. p. 475, n. 2 (1845); *Rchnb. Syn. Av.* ff. 1415–16 (1847) (*ex Gould*); *Hartl. J. f. O.* 1854, p. 170; *Bp. Consp. Av.* ii. p. 83 (1854); *id. Compt. Rend.* xl. pp. 98, 220, n. 248 (1855); *id. Coup d'œil Ordre Pig.* pp. 42, 58, n. 248 (1855); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 48 (1856); *Rchnb. Tauben*, i. p. 22, t. 227. f. 2484, t. 254. ff. 1415–16 (1862); *G. R. Gr. Hand-list*, ii.

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* I have not been able to identify the following species:—

ZENAIDA STENURA.

Zenaida stenura, *Bp. Mus. Paris*, 1854; *id. Consp. Av.* ii. p. 84 (1854) (Colombia); *id. Compt. Rend.* xl. pp. 98, 220, n. 250 (1855); *id. Coup d'œil Ordre Pig.* pp. 43, 58, n. 250 (1855).

Zenaida (Stenurœna) stenura, *Rchnb. Tauben*, i. p. 20 (1862).

Stenurœna stenura, *G. R. Gr. Hand-list*, ii. p. 241, n. 9358 (1870); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 284 (1889) (Bogota).

Chamæpelia stenura, *Gieb. Thes. Orn.* i. p. 636 (1872).

"Similis *Z. pentheriæ*, sed minor, dilutior, magis rufescens; tectricibus inferioribus et alis subtus dilute cinereis; rectricibus fasciola subterminali, omnibus angustis; extima utrinque fere lineari. Ex Columbia." (*Bp.*)

The type is no longer in the Paris Museum, and I am very doubtful whether it was not a damaged specimen of *Z. ruficauda*, with the outer tail-feather reduced from moth-eating or some other cause; as to the specimen in the British Museum, I am inclined to attribute it to *Z. jessiæ*.

p. 241, n. 9356 (1870); *Sclat. & Salv. P. Z. S.* 1870, p. 323; ?*Sousa, Mus. Nac. Lisb.* Columbæ, p. 21 (1873); *Salv. Ibis*, 1874, p. 312.

Columbigallina galapagoensis, *Des Murs & Prév. Voy. Vénus, Ois.* p. 270, pl. 8 (1849).

Geophaps galopagoënsis, *Rchnb. Syn. Av.* Columbariæ, *Novit.* t. 227. f. 2484 (1851) (*ex Voy. Vénus*).

Columba gallopagoensis, *Bp. Compt. Rend.* xliii. p. 946 (1856) (distinct genus).

Columba (Zenaida) galapagensis, *Sundev. P. Z. S.* 1871, p. 125.

Nesopelia gallapagensis, *Sundev. Meth. nat. Av. disp. Tent.* p. 99 (1872).

Chamæpelia gallopagoensis, *Gieb. Thes. Orn.* i. p. 634 (1872).

Peristera gallopagoensis, *Schleg. Mus. P.-B.* Columbæ, p. 140 (1873).

Zenaida galapagensis, *Sclat. & Salv. Nomencl. Av. Neotrop.* p. 132, n. 5 (1873); *Salv. Tr. Zool. Soc.* ix. pp. 464, 499 (1876).

Adult male. Forehead dark vinous, changing into brown-olive on the crown, occiput, nape, mantle, lower back, rump, and upper tail-coverts; throat pale rufous, changing into deep vinous on the breast; abdomen rusty vinous; under tail-coverts grey, more or less with a rusty tinge; ear-coverts silvery grey, bordered above and below with a black line; feathers of the cheeks vinous, edged with black; sides of the neck with golden and amethyst reflections; scapulars and upper wing-coverts brown, each with two black spots, one on each web, the central part of the feathers often whitish; outer upper wing-coverts whitish on the outer web; primary-coverts and quills blackish, the latter with paler tips and narrow light edges; under surface of the quills greyish; tail greyish brown, with a black subterminal band, leaving a broadish apical band: "iris dark brown; feet pink; eyelids pale blue" (*Dr. Habel*); bill black. Total length about 8·5 inches, wing 5·25, tail 2·7, bill 0·65, tarsus 0·9.

Female. Similar to the male, only somewhat smaller and paler.

Hab. Galapagos Islands.

a. Ad. sk.	[Chili.]	Capt. Lord Byron [P.].
b. Ad. sk.	Galapagos.	Capt. Kellett and Lieut. Wood [P.].
c. Ad. sk.	Galapagos (*C. Darwin*).	Eyton Coll.
d–g. ♂ ♀ ad. sk.	Indefatigable Island, Galapagos (*Dr. A. Habel*).	Salvin-Godman Coll.
h. ♀ ad. sk.	Bindloe Island, Galapagos, Nov. (*Dr. A. Habel*).	Salvin-Godman Coll.

4. MELOPELIA.

	Type.
Melopelia, *Bp. Consp. Av.* ii. p. 81 (1854)	M. leucoptera.
Melopeleia, *Rchnb. Tauben*, i. p. 22 (1862).	

Range. From Southern United States to Peru and Chili.

Key to the Species.

a. Light tips to the lateral tail-feathers white-grey; bill smaller, 0·75 inch ..... *leucoptera*, p. 392.
b. Light tips to the lateral tail-feathers grey; bill larger, 0·78 inch ..... *meloda*, p. 395.

1. Melopelia leucoptera.

Brown Indian Dove, *Edw. Birds*, i. pl. 76 (1750).
Turtur indicus fuscus, *Edw. op. cit.* p. 127.
Columba indica, *Briss. Orn.* i. p. 105 (1760).
Columba leucoptera, *Linn. S. N.* i. p. 281, n. 15 (1766); *Jacq. Beytr.* p. 33, n. 27 (Cartagena) (1784); *Gm. S. N.* i. p. 773, n. 15 (1788); *Lath. Ind. Orn.* ii. p. 595, n. 6 (1790); *Bonn. Enc. Méth.* p. 246 (1790); *Vieill. N. D.* xxvi. p. 351 (part.) (1818); *Wagl. Syst. Av.* Columba, sp. 71 (1827); *Denny, P. Z. S.* 1847, p. 39; *McCall, Pr. Philad. Acad.* iv. p. 64 (1848).
Columba aurita, part., *Temm. Pig. et Gallin.* i. pp. 247, 467 (1813).
Columba aurita, part., *Steph. Gen. Zool.* xi. p. 51 (1819).
Columba trudeaui, *Aud. B. Am.* vii. p. 352, pl. 496 (1843).
Zenaida leucoptera, *G. R. Gr. List Gallinæ Brit. Mus.* p. 14 (1844); *id. Gen. B.* ii. p. 475, n. 3 (1845); *Rchnb. Syn. Av.* f. 1417 (1847); *G. R. Gr. Gen. B.* App. p. 24 (1849); *Rchnb. Av. Syst. Nat.* p. xxiv (1852); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 48 (1856); *Sclat. P. Z. S.* 1856, p. 309 (Cordova), 1858, p. 305 (Oaxaca), 1859, p. 368; *Tayl. Ibis*, 1860, p. 227 (Honduras); *Sclat. P. Z. S.* 1861, p. 80; *Albrecht, J. f. O.* 1862, p. 204; *Sclat. List Vert. An.* 8th ed. p. 456 (1883).
Turtur leucopterus, *Gosse, B. Jam.* p. 304 (1847); *id. Nat. Soj. in Jam.* p. 174 (1851).
Zenaida trudeaui, *Rchnb. Syn. Av. Novit.* Columbariæ, f. 2869 (1851); *id. Av. Syst. Nat.* p. xxiv (1852).
? Zenaida meloda, *Licht.* (*nec Tsch.*) *Nom. Av.* p. 83 (Mexico) (1854).
Melopelia leucoptera, *Bp. Consp. Av.* ii. p. 81 (1854); *id. Compt. Rend.* xl. p. 220, n. 240 (1855); *id. Coup d'œil Ordre Pig.* p. 58, n. 240 (1855); *id. Compt. Rend.* xliii. p. 946 (1856); *Baird, B. N. Am.* p. 603 (1858); *id. Pr. Philad. Acad.* 1859, p. 305 (Cape St. Lucas); *March, Pr. Philad. Acad.* 1863, p. 302 (Jamaica); *Sclat. P. Z. S.* 1864, p. 178; *Dress. Ibis*, 1866, p. 24; *Coues, Pr. Philad. Acad.* 1866, p. 93 (Arizona); *Gundl. Repert. Fisico-Nat. Cuba*, i. p. 301 (1866); *Lawr. Ann. Lyc. N. Y.* ix. pp. 139 (Costa Rica), 207 (Yucatan) (1869); *Baird & Coop. B. Calif.* i. p. 515 (1870); *G. R. Gr. Hand-list*, ii. p. 241, n. 9361 (1870); *Dugès, Naturaleza*, i. p. 141, n. 170 (1870); *Coues, Key*, p. 226 (1872); *Schleg. Mus. P.-B.* Columbæ, p. 152 (part.?) (1873); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 21 (1873); *Sclat. & Salv. Nomencl. Av. Neotr.* p. 133 (1873); *Lawr. Mem. Bost. Soc. N. H.* ii. p. 305 (1874); *B., B., & R. N. Am. B.* iii. p. 376 (1874); *Coues, B. North-West*, p. 387 (note) (1874); *Gundl. J. f. O.* 1874, p. 297 (Cuba); *Lawr. Bull. U.S. Nat. Mus.* n. 4, p. 44 (1876); *Sanchez, An. Mus. Nac. Mex.* i. p. 105, n. 489 (1878); *A. & E. Newt. Handb. Jam.* p. 114 (1881); *Sumichrast. Naturaleza*, v. p. 232, n. 32 (1881); *Salv. Cat. B. Strickl. Coll.* p. 548 (1882); *id. P. Z. S.* 1883, p. 428; *Cory, B. Haiti & San Domingo*, p. 131 (1885); *id. List B. W. Ind.* i. p. 24 (1885); *F.-Perez, Pr. U.S. Nat. Mus.* ix. p. 175 (1886); *Cory, Auk*, 1887, p. 115; *id. B. W. Ind.* p. 216 (1889); *Scott, Auk*,

1889, p. 160 (Key West); *Salv. Ibis*, 1889, p. 377; *Tristr. Cat. Coll. E.* p. 40 (1889); *Hein. & Reichw. Nomencl. Mus. Hain. Orn.* p. 284 (1890); *Herrera, Naturaleza*, (2) i. p. 327, n. 184 (1890); *id. Apunt. de Ornit.* p. 20; *Hartert, Kat. Vogelsammel.* p. 187 (1891); *Shufeldt, P. Z. S.* 1891, p. 194; *Bendire, Life-Hist. N. Am. Birds*, p. 145 (1892); *Scott, Auk*, 1892, p. 123 (Jamaica); *Attwater, t. c.* p. 233 (Texas).

Melopeleia leucoptera, *Rchnb. Tauben*, i. p. 22, t. 254. f. 1417, t. 255. f. 2869 (1862), ii. p. 164 (1862).

Chamæpelia leucoptera, *Gieb. Thes. Orn.* i. p. 634 (1872).

Adult male. Upper parts, throat, and breast pale greyish brown, with an olivaceous cast; occiput and nape with a purplish tinge; on the nape golden-green reflections in some lights; a spot of black below the ears; sides of the neck with golden-green and amethyst reflections; throat and upper breast with an ochreous tinge; lower breast, abdomen, under tail-coverts, and under wing-coverts pale grey; a broad band of white on the wings from the bend to the tips of the greater coverts; winglet, primary-coverts, and quills brown-black; secondaries margined terminally with white, inner secondaries like the back; primaries with narrow white edges; central tail-feathers rufous brown; the lateral ones above grey, with a broad apical white-grey band, and before this an obsolete blackish one; lateral tail-feathers below black, with the broad apical band greyish white: bill black; feet pinkish purple; iris purple. Length about 11 inches, wing 6·5, tail 4·5, bill 0·75, tarsus 0·95.

Female. Slightly smaller and with the purplish colour on the occiput and nape scarcely apparent.

Hab. Southern border of the United States, from Texas, New Mexico, Arizona, and Lower California, southward to Costa Rica and the West Indies.

a. ♂ ad. sk.	Fullers, Arizona, May (*E. W. Nelson*).	Salvin-Godman Coll.
b. ♂ ad. sk.	La Paz, Lower California, Feb. (*Frazar*).	Salvin-Godman Coll.
c, d, e. ♂ ♀ ad. et ♀ juv. sk.	Cape San Lucas, California (*J. Xantus*).	Salvin-Godman Coll.
f–n. ♂ ♀ ad. et imm. sk.	Brownsville, Texas, April (*F. B. Armstrong*).	Salvin-Godman Coll.
o–u. ♂ ♀ ad. et imm. sk.	Hidalgo, Texas, April (*F. B. Armstrong*).	Salvin-Godman Coll.
v. ♂ ad. sk.	Matamoros, Mexico, Aug. (*H. E. Dresser*).	Salvin-Godman Coll.
w, x. ♀ ad. sk.	Alamos, Sonora, May (*W. Lloyd*).	Salvin-Godman Coll.
y. ♂ juv. sk.	Atotonilco, Mexico, July (*Ferrari-Perez*).	Salvin-Godman Coll.
z. ♂ ad. sk.	Gila River, N. Mexico, Oct. (*H. Wheeler*).	Salvin-Godman Coll.
a'–d'. ♂ ad. et imm. sk.	Pesqueria Grande, N. Leon, May (*F. B. Armstrong*).	Salvin-Godman Coll.
e'–i'. ♂ ad. sk.	Hacienda de Los Escobas, N. Leon, April, May (*F. B. Armstrong*).	Salvin-Godman Coll.

k'. ♂ ad. sk.	Panaguslin, N. Leon, May (*F. B. Armstrong*).	Salvin-Godman Coll.
l'. ♂ ad. sk.	Rio de Monteng, N. Leon, April (*F. B. Armstrong*).	Salvin-Godman Coll.
m'. ♂ imm. sk.	Rio de La Gilla, N. Leon, April (*F. B. Armstrong*).	Salvin-Godman Coll.
n'. ♂ ad. sk.	Tepic, Mexico, May (*W. B. Richardson*).	Salvin-Godman Coll.
o'. ♂ ad. sk.	San Blas, Ter. of Tepic, Mexico, May (*W. B. Richardson*).	Salvin-Godman Coll.
p', *q'*. ♂ ad. sk.	Bolanos, Jalisco, Mexico, Feb. (*W. B. Richardson*).	Salvin-Godman Coll.
r', *s'*. ♂ ♀ ad. et imm. sk.	Zapotlan, Jalisco, Mexico, Mar., Oct. (*W. B. Richardson*).	Salvin-Godman Coll.
t', *u'*, *v'*. ♂ ad. sk.	Tampico, Mexico, June (*W. B. Richardson*).	Salvin-Godman Coll.
w'. Juv. sk.	Jerez, Zacatecas, Mexico, Sept. (*W. B. Richardson*).	Salvin-Godman Coll.
x'. ♂ ad. sk.	Aguas Calientes, Mexico, Aug. (*W. B. Richardson*).	Salvin-Godman Coll.
y'. ♀ ad. sk.	Valles, San Luis Potosi, Mexico, May (*W. B. Richardson*).	Salvin-Godman Coll.
z', *a''*. ♂ ad. et ad. sk.	Muri, Mexico, April (*W. Lloyd*).	Salvin-Godman Coll.
b''. ♂ ad. sk.	Acapulco, Mexico, March (*A. H. Markham*).	Salvin-Godman Coll.
c''. ♀ ad. sk.	Tierra Colorada, 2000 feet, Guerrero, Mexico, Oct. (*Mrs. H. H. Smith*).	Salvin-Godman Coll.
d''. ♂ imm. sk.	Tamaulipas, Mexico, May (*W. B. Richardson*).	Salvin-Godman Coll.
e''. ♂ ad. sk.	Juchatengo, Oaxaca, Mexico, April (*M. Trujillo*).	Salvin-Godman Coll.
f''. ♀ ad. sk.	Tehuantepec, Mexico, Feb. (*W. B. Richardson*).	Salvin-Godman Coll.
g''. Imm. sk.	Mazatlan, W. Mexico (*A. J. Grayson*).	Salvin-Godman Coll.
h''. ♂ ad. sk.	Mazatlan, W. Mexico, Dec. (*Forrer*).	Salvin-Godman Coll.
i''. Ad. sk.	N. Yucatan (*Gaumer*).	Salvin-Godman Coll.
k''. ♂ ad. sk.	Izamal, N. Yucatan, Jan. (*Gaumer*).	Salvin-Godman Coll.
l'', *m''*. Ad. sk.	Cozumel Is., Yucatan (*Gaumer*).	Salvin-Godman Coll.
n''. Ad. sk.	Mugeres Is., Yucatan, Dec. (*Gaumer*).	Salvin-Godman Coll.
o''. ♂ imm. sk.	San José Sololá, Guatemala, 8000 feet, Dec. (*W. B. Richardson*).	Salvin-Godman Coll.
p''. ♂ imm. sk.	Volcan de Agua, above San Diego, Nov. (*O. S.*).	Salvin-Godman Coll.

q''. Ad. sk.	Dueñas, Guatemala (*Fraser*).	Salvin-Godman Coll.
r''. ♂ ad. sk.	San Gerónimo, Vera Paz, March (*O. S.*).	Salvin-Godman Coll.
s''. Ad. sk.	Honduras.	Leyland Coll.
t''. Juv. sk.	San Pedro, Honduras (*G. M. Whitely*).	Salvin-Godman Coll.
u''. ♂ ad. sk.	La Libertad, Salvador, May (*W. B. Richardson*).	Salvin-Godman Coll.
v''. ♂ ad. sk.	Costa Rica (*J. Carmiol*).	Salvin-Godman Coll.
w''. ♀ ad. sk.	Near Spanish Town, Jamaica, May (*W. T. March*).	Smithsonian Institution [P.].
x'', *y''*. Ad. et juv. sk.	Jamaica.	Gould Coll.
z''. Ad. sk.	Jamaica.	Gosse Coll.
*a*³. Ad. sk.	W. Indies.	Purchased.
*b*³. Ad. sk.	No locality.	Purchased.

2. Melopelia meloda.

Columba meloda, *Tsch. Archiv f. Naturg.* 1843, 1, p. 385 (Peru); *id. Faun. Per., Aves*, pp. 44, 276, t. 29 (1844–46).
Columbina? meloda, *G. R. Gr. Gen. B.* ii. p. 474, n. 6 (1845), App. p. 24 (1849).
Zenaida souleyetiana, *Des Murs, in Gay's Hist. de Chili*, i. p. 380, t. vii. (1847).
Zenaida meloda, *Rchnb. Syn. Av.* f. 1418 (1847); *Gr. fide Bp. Consp. Av.* ii. p. 81 (1854).
Melopelia meloda, *Bp. Consp. Av.* ii. p. 81 (1854); *id. Compt. Rend.* xl. p. 220, n. 241 (1855); *id. Coup d'œil Ordre Pig.* p. 58, n. 241 (1855); *id. Compt. Rend.* xliii. p. 946 (1856); *Sclat. P. Z. S.* 1867, pp. 330, 339 (Chili); *G. R. Gr. Hand-list*, ii. p. 241, n. 9362 (1870); *Sclat. & Salv. Nomencl. Av. Neotr.* p. 133, n. 2 (1873) (Peru and Chili); *Tacz. Orn. Pér.* iii. p. 241 (1886).
Columba leucoptera, *Aliq. fide Bp. Consp. Av.* ii. p. 81 (1854).
Melopelia souleyetiana, *Bp. in litt. fide Consp. Av.* ii. p. 81 (1854); *G. R. Gr. Hand-list*, ii. p. 241, n. 9363 (1870).
Melopeleia meloda, *Rchnb. Tauben*, i. p. 23, t. 254. f. 1418 (1862).
Chamæpelia meloda, *Gieb. Thes. Orn.* i. p. 635 (1872).
Melopelia leucoptera, part., *Schleg. Mus. P.-B.* Columbæ, p. 152 (1873).

Adult male. Similar to the male of *M. leucoptera*, from which it differs in having a stronger bill, and the light tips to the lateral tail-feathers narrower and decidedly of a grey colour. Size of *M. leucoptera*, but bill larger, 0·78 inch. "Irides brown; naked skin round the eyes ultramarine; beak black; feet carmine" (*Berkeley James*).

Hab. Peru and N. Chili.

a. ♂ ad. sk.	Pica, Pr. of Tarapacá, N. Chili, 4000 feet.	H. Berkeley James [P.].

Subfamily II. TURTURINÆ.

5. TURTUR.

Key to the Subgenera.

a. Feathers of the neck normal, not bifurcated.
  a'. Two scale-like dark patches on the sides of the neck, with the edges of the feathers light coloured.
    a''. Upper wing-coverts mottled, having the centres darker than the edges ..... *α*. TURTUR, p. 396.
    b''. Upper wing-coverts not mottled, but uniform ..... *β*. HOMOPELIA, p. 409.
  b'. A complete black collar on the hind neck ..... *γ*. STREPTOPELIA, p. 413.
b. Feathers of the hind neck bifurcated, black, with two white apical spots .. *δ*. SPILOPELIA, p. 439.
c. Feathers of the fore neck bifurcated, black, with two rufous apical spots .. *ε*. STIGMATOPELIA, p. 448.

α. TURTUR.

	Type.
Peristera, *Boie, Isis*, 1828, p. 327 (*nec Sw.* 1827)	T. turtur.
Turtur, *Selby, Nat. Libr., Pigeons*, p. 169 (1835)	T. turtur.

Range. Palæarctic, Æthiopian, and Oriental Regions.

Key to the Species.

a. Tips of the feathers on the sides of the neck white; under tail-coverts and terminal band across the tail white.
  a'. Upper part of the head and rump lead-grey .. *turtur*, p. 396.
  b'. Head, back, and rump sandy brown ..... *isabellinus*, p. 400.
b. Tips of the feathers on the sides of the neck grey.
  c'. Upper wing-coverts broadly edged with rusty red.
    a''. Under tail-coverts and terminal band across the tail pale, almost white as in *T. turtur* . *ferrago*, p. 401.
    b''. Under tail-coverts and terminal band across the tail grey ..... *orientalis*, p. 403.
  d'. Upper wing-coverts brown-grey; only some of the inner greater ones, and also some of the tertials, with rusty-red edges; under tail-coverts deep grey; general plumage very dark grey ..... *lugens*, p. 408.

1. Turtur turtur.

Turtur, *Will. Orn.* p. 134, t. 35; *Ray, Av.* p. 61; *Alb. Av.* ii. p. 43, t. 47; *Olina, Ucc.* p. 34; *Frisch, Av.* t. 140; *Briss. Orn.* i. p. 92 (1760).

Turtur auritus, *Ray, Syn.* p. 184, n. 26.

Columba turtur, *Linn. S. N.* i. p. 284, n. 32 (766) (India !); *Gm.*

S. N. i. 2, p. 786, n. 32 (1788); *Lath. Ind. Orn.* ii. p. 605, n. 47 (1790); *Bonn. Tabl. Enc., Orn.* p. 247, pl. 81. f. 3 (1790); *Temm. & Knip, Pig.* i. fam. seconde, pl. 42 (1808–11); *Temm. Pig. et Gallin.* i. pp. 305, 478 (excl. var. *b*, *c*) (1813); *Vieill. N. D.* xxvi. p. 373 (1818); *Steph. Gen. Zool.* xi. p. 72, pl. 2 (1819); *Temm. Man. d'Orn.* ii. p. 448 (1820); *Desm. Dict. Sc. Nat.* xl. p. 345 (1826); *Wagl. Syst. Av.* Columba, sp. 100 (1827); *Savi, Orn. Tosc.* ii. p. 163 (1829); *Less. Tr. d'Orn.* p. 473 (1831); *Naum. Naturg. Vög. Deutschl.* vi. p. 233, t. 152. ff. 1, 2 (1833); *Selby, Ill. Brit. B.* pl. 56. f. 2 (1833); *Rüpp. Neue Wirbelth.* p. 67 (1835); *Strickl. P. Z. S.* 1836, p. 100 (Smyrna); *Gould, B. Eur.* iv. pl. 240 (1837); *Vern. Harc. P. Z. S.* 1851, p. 146 (Madeira); *Buvry, J. f. O.* 1857, pp. 67, 195 (Algeria); *Bolle, ibid.* p. 331 (Canaries); *Powys, Ibis* 1860, p. 237 (Ionian Islands); *Wright, Ibis*, 1863, p. 436, 1864, p. 137; *Sperling, Ibis*, 1864, p. 283; *Smith, Ibis*, 1868, p. 450 (Portugal); *Saund. Ibis*, 1871, p. 223 (S. Spain); *Severtz. Turkest. Jevotn.* p. 68 (1873) (Turkestan); *Danf. & Harvie Brown, Ibis*, 1875, p. 416 (Transylvania); *Gulliv. P. Z. S.* 1875, p. 489; *Lilford, Ibis*, 1889, p. 332 (Cyprus).

Tourterelle, *D'Aubent. Pl. Enl.* 394.

Peristera turtur, *Boie, Isis*, 1828, p. 327; *Brehm, Vög. Deutschl.* p. 493 (1831); *id. Vogelf.* p. 257 (1855); *Salvad. J. f. O.* 1865, p. 279; *Savi, Orn. Ital.* ii. p. 217 (1874); ? *Severtz. J. f. O.* 1875, p. 180; *Radde, Ornis*, iii. p. 494 (1887); *Koenig, J. f. O.* 1890, p. 448 (Teneriffe).

Peristera tenera, *C. L. Brehm, Vög. Deutschl.* p. 494 (1831) (var.).

Peristeria lugubris, *Landb. Syst. Aufz. d. Vög. Würtemb.* p. 52 (1834) (var.).

Peristeria maxima, *Landb. ibid.* (var.).

Turtur communis, *Selb. Nat. Libr., Pigeons*, pp. 153, 171 (1835); *Saund. Yarrell's Brit. B.* iii. p. 21 (1882); *B. O. U. List Brit. B.* p. 139 (1883); *Shell. Ibis*, 1883, p. 299; *Sclat. List Vert. An.* 8th ed. p. 452 (1883); *Clarke, Ibis*, 1884, p. 147 (Hungary); *Whiteh. Ibis*, 1884, p. 40 (Corsica); *Tristr. Faun. & Flor. Palest.* p. 120 (1884); *Pleske, Uebers. Säugeth. u. Vög. Kola-Halbins.* p. 297 (1886); *Salvad. Elenco Ucc. Ital.* p. 192 (1887); *Tait, Ibis*, 1887, p. 379 (Portugal); *Chapm. Ibis*, 1888, p. 445; *Pleske, Mém. Ac. Pétersb.* (7) xxxvi. n. 3, p. 45 (Turkestan) (1888); *St. John, Ibis*, 1889, p. 174 (Kandahar); *Clarke, Ibis*, 1889, p. 551; *Tristr. Cat. Coll. B.* p. 38 (1889); *Evans, Ibis*, 1891, p. 74; *Saund. Ibis*, 1891, p. 185.

Turtur vulgaris, *Eyt. Cat. Brit. B.* p. 32 (1836); *Drake, Ibis*, 1869, p. 153 (Morocco); *Elw. & Buckl. Ibis*, 1870, p. 201; *Dress. B. of Eur.* vii. p. 39, pl. 462 (1876); *id. Ibis*, 1876, p. 321 (Turkestan); *Danf. Ibis*, 1878, p. 27 (Asia Minor); *Salv. Cat. B. Strickl. Coll.* p. 544 (1882); *Irby, Ibis*, 1883, p. 184; *Koenig, J. f. O.* 1888, p. 253 (Tunis), 1891, p. 312 (Teneriffe).

Turtur migratorius, *Sw. Class. B.* ii. p. 349 (1837); *Sclat. Contr. Orn.* 1852, p. 126 (Mokollo and Moses' Well).

Turtur auritus, *G. R. Gr. List Gen. B.* p. 38 (1840); *id. Gen. B.* ii. p. 472, n. 1 (1844); *Hartl. Syst. Verz.* p. 99 (1844); *Rüpp. Syst. Uebers.* p. 100 (1845); *Rchnb. Syn. Av.* ff. 1356–58 (1847); *Blyth, Cat. B. Mus. A. S. B.* p. 237, n. 1437 (1849); *Bp. Consp. Av.* ii. p. 61 (1854); *id. Compt. Rend.* xl. pp. 16, 219, n. 176 (1855); *id. Coup d'œil Ordre Pig.* pp. 29, 57, n. 176 (1855); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 41 (1856); *Tristr. Ibis*, 1859, p. 35 (Palestine); *Salv. Ibis*, 1859, p. 318 (E. Atlas); *Hartl. J. f. O.*

1861, p. 266 (Gaboon!); *Rchnb. Tauben*, i. p. 69, t. 246. ff. 1356–1358, ii. p. 173 (1862); *Homey. J. f. O.* 1862, p. 418 (Baleares); *Hartm. J. f. O.* 1863, pp. 303, 308, 315; *Tristr. P. Z. S.* 1864, p. 448 (Palestine); *Allen, Ibis*, 1864, p. 239 (Egypt); *Schleg. De Dnerent.* p. 206 (1864); *Tristr. Ibis*, 1865, p. 77; *More, Ibis*, 1865, p. 142; *Bett. Ucc. Lomb.* t. 34 (1867); *Tristr. Ibis*, 1868, p. 210 (Palestine); *G. R. Gr. Hand-list*, ii. p. 238, n. 9311 (1870); *Shell. Ibis*, 1871, p. 142; *Gurn. Ibis*, 1871, pp. 295, 300 (Algeria); *Heugl. Orn. N.O.-Afr.* i. 2, p. 839 (1871); *Finsch, J. f. O.* 1872, p. 82 (N. Zealand, introduced); *Salvad. Fauna d'Ital., Ucc.* p. 180 (1872); *Tayl. Ibis*, 1872, p. 230 (Crimea); *Heugl. Orn. N.O.-Afr.* ii. App. p. clxix (1875); *Shell. Birds of Egypt*, p. 214, pl. 10. f. 1 (1872); *Gould, B. Gr. Brit.* iv. pl. 4 (1873); *Schleg. Mus. P.-B.* Columbæ, p. 116 (1873); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 16 (1873); *Antin. & Salvad. Viagg. Bogos*, p. 130 (1873); *Hume, Lahore to Yark.* p. 278 (1873) (Yarkand); *Brooke, Ibis*, 1873, p. 335; *Cord. Ibis*, 1875, p. 184 (Heligoland); *Whart. Ibis*, 1876, p. 26 (Corsica); *Blanf. East. Persia*, ii. p. 270 (1876) (Persia); *Schal. J. f. O.* 1876, p. 186; *Scully, Str. Feath.* iv. p. 177 (1876); *Forbes, P. Z. S.* 1877, p. 306; *Danf. Ibis*, 1878, p. 26 (Asia Minor); *Tayl. Ibis*, 1878, p. 369; *Bidd. Ibis*, 1881, p. 92 (Gilgit); *Scully, Ibis*, 1881, p. 595 (Gilgit); ? *C. Swinh. Ibis*, 1882, p. 117 (Quetta); *Bidd. Ibis*, 1882, p. 268; *Dixon, Ibis*, 1882, p. 577 (Constantine); *Seebh. Ibis*, 1883, p. 25 (Caucasus); *Severtz. Ibis*, 1883, p. 71 (Pamir range); *Homey. & Tancré, MT. orn. Ver. Wien*, 1883, p. 91; *Zarudn. Ois. Transcasp.* p. 61 (1885); *Wright, P. Z. S.* 1886, p. 81 (albino); *Sharpe, Ibis*, 1886, p. 489 (Fao); *Scully, J. A. S. B.* lvi. p. 86 (1887); *Guillem. Ibis*, 1888, p. 113 (Cyprus); *Sharpe, Tr. Linn. Soc.*, (2) *Zool.* v. p. 84 (1889); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 277 (1890); *Sharpe, Sc. Res. Sec. Yark. Miss.*, Aves, p. 118 (1891); *Rend. Ibis*, 1892, p. 227 (Gambia).

Columba afra, *Webb & Berth.* (*nec Linn.*) *Orn. Can.* p. 28 (1841); *Bolle, J. f. O.* 1855, p. 173; *Godm. Ibis*, 1872, p. 218 (?); *Reid, Ibis*, 1887, p. 428.

Turtur sylvestris, *Rchnb. Av. Syst. Nat.* p. xxv (1852).

Turtur glauconotus, *C. L. Brehm, Vogelf.* p. 257 (1855); *id. Naturg. u. Zucht d. T.* p. 50 (1857).

Turtur risorius (*errore*), *E. Newt. Ibis*, 1859, p. 462; *Wright, Ibis*, 1864, p. 139.

Turtur cyanotos, *Rchnb. Tauben*, ii. p. 173 (1862).

Turtur tenera, *Gigl. Avif. Ital.* n. 321 (1886).

Turtur turtur, *Sharpe, Ibis*, 1891, p. 111 (Fao); *Hartert, Kat. Vogelsmml.* p. 187 (1891).

T. turtur × *T. risorius.*

Turtur hybridus, *Briss. Orn.* i. p. 97 (1760).

Columba turtur γ, *Lath. Ind. Orn.* ii. p. 608 (1790).

Adult male. Crown, nape, and hind neck bluish ash; on each side of the neck a black patch, each feather with ashy-white edges; back pale brown; lower back, rump, and upper tail-coverts brown, more or less ashy; chin nearly white; throat and breast vinous, changing into white on the belly, vent, and under tail-coverts; flanks and under wing-coverts bluish grey; scapulars and innermost wing-coverts cinnamon-brown with dark centres;

greater and outermost smaller wing-coverts grey; quills brown, the tertials broadly edged with cinnamon-brown; two central tail-feathers brown, the remainder greyish black, broadly tipped with white, which runs up the whole outer web of the outer feathers: bill brown; iris reddish brown, bare skin round the eye red; tarsi and feet red. Total length 11·5 inches, wing 7, tail 4·8, bill 0·8, tarsus 0·85.

Female. Rather smaller than the male, and the plumage less bright and pure.

Young. Upper parts much browner than in the adult; quills margined and tipped with rufous, and the rufous margins to the coverts and scapulars broader and duller; no dark patches on the sides of the neck; throat and breast dull pale ash, the lower throat washed with buffy brown; flanks grey; rest of the underparts white.

Hab. Western Palæarctic Region; Africa in winter as far south at least as Shoa, and Asia as far east as Yarkand.

a–g. ♂ ♀ ad. et pull. st.	Merton, Norfolk.	Lord Walsingham [P.].
h–n. Ad., juv., et pull. st.	Cambridgeshire.	Purchased.
o. ♂ ad. sk.	Brighton, Sussex, April.	Seebohm Coll.
p. Ad. sk.	Colgate, Sussex, July.	Sharpe Coll.
q. Ad. st.	Berkshire.	W. Briggs, Esq. [P.].
r. ♂ ad. sk.	Cookham, July (*R. B. Sharpe*).	Tweeddale Coll.
s. ♂ juv. sk.	Cookham, May (*W. Briggs*).	Tweeddale Coll.
t. ♀ ad. sk.	Cookham, July.	Sharpe Coll.
u, v. ♀ ad. et ♂ juv. sk.	Romney Marsh, July.	Sharpe Coll.
w. Juv. sk.	Banks of Thames, Sept.	Gould Coll.
x, y. ♂ ♀ juv. sk.	Avington, Sept.	Sharpe Coll.
z. Juv. sk.	Avington (*G. E. Shelley*).	Shelley Coll.
a'. Ad. sk.	West Drayton, June (*Paraman*).	Hume Coll.
b'. ♂ ad. sk.	Heligoland, May (*Gätke*).	Seebohm Coll.
c'. ♂ ad. sk.	Hungary, July.	Hungarian Museum [P.].
d'. ♀ ad. sk.	Valencia, April (*H. Saunders*).	Tweeddale Coll.
e'. ♀ ad. sk.	Tangiers, April.	Tweeddale Coll.
f'. ♂ ad. sk.	Biskra, Algeria, May (*Dixon*).	Seebohm Coll.
g'. ♂ ad. sk.	El Kantara, Algeria, May (*Dixon*).	Seebohm Coll.
h'. ♂ ad. sk.	Lambesse, Algeria, May (*Dixon*).	Seebohm Coll.
i', k'. Ad. sk.	Tunis.	Fraser [C.].
l', m', n'. ♂ ♀ ad. sk.	Egypt (*G. E. Shelley*).	Shelley Coll.
o'. Ad. sk.	Africa.	Purchased.
p'. Ad. sk.	Near Lefkonico, Cyprus, April (*Guillemard*).	Lord Lilford [P.].

q'. Ad. sk.	Brussa, Asia Minor.	Purchased.
r'. ♂ ad. sk.	Hermon, Palestine.	Canon Tristram [P.].
s'. ♂ ad. sk.	E. Bank of the Jordan.	Canon Tristram [P.].
t', *u'*. ♂ ad. sk.	Kaukasus, June (*Michalowski*).	Seebohm Coll.
v', *w'*. ♀ ad. et ♂ juv. sk.	Babylonia (*Commander Jones*).	India Museum.
x', *y'*, *z'*. Ad. sk.	Fao, Persian Gulf.	W. D. Cumming, Esq. [P.].
a''. ♂ ad. sk.	Kirkhah R., Persia.	Kenneth Loftus, Esq. [P.].
b''. ♂ ad. sk.	Kerrind, Persia, Aug.	Kenneth Loftus, Esq. [P.].
c'', *d''*. ♂ ad. sk.	Near Shiraz, 5500–6000 ft.	W. T. Blanford, Esq. [E.].
e''. Ad. sk.	Kargalik, May (*F. Stoliczka*).	India Museum [P.].
f''. Ad. sk.	Yarkand, May (*F. Stoliczka*).	India Museum [P.].
g'', *h''*, *i''*. ♂ ♀ ad. sk.	Yarkand, June, Aug. (*J. Scully and G. Henderson*).	Hume Coll.
k''. ♂ ad. sk.	Yarkand, May (*J. Biddulph*).	Salvin-Godman Coll.
l''. ♂ ad. sk.	Turkestan, May (*Prjevalsky*).	Seebohm Coll.
m''. ♀ ad. sk.	Quetta, May.	Lt.-Col. Swinhoe [P.].
n''. Juv. sk.	Kashgar, Dec. (*F. Stoliczka*).	India Museum [P.].
o'', *p''*, *q''*. ♂ ♀ ad. sk.	Khusan, May (*Aitchison*).	Afghan Boundary Commission [P.].
r'', *s''*. Skulls.	S. Germany.	Dr. Günther's Coll.
	Hybrids (*T. turtur* × *T. risorius*).	
a. ♂ ad. sk.		E. W. H. Blagg [P.].
b. Ad. sk.		Gould Coll.

2. Turtur isabellinus.

Turtur auritus, part., *Brehm, J. f. O.* 1853, Extrah. pp. 100, 101; ? *Allen, Ibis*, 1864, p. 239 (Egypt); ? *Tayl.* (*nec Linn.*?) *Ibis*, 1867, p. 67 (Egypt).

? Peristera rufidorsalis, *C. L. Brehm, Vogelf.* p. 257 (1855) (S.E. Europe, in winter in N.E. Africa); *id. Naturg. u. Zucht d. Taub.* p. 49 (1857); *Rchnb. Taub.* ii. p. 173 (1862); *Heugl. Orn. N.O.-Afr.* i. 2, p. 851 (1871).

Turtur isabellinus, *Bp. Mus. Berol.*; *id. Compt. Rend.* xliii. pp. 942, 949 (1856); *id. Icon. Pig.* pl. 102 (bad) (1857); *G. R. Gr. Handlist*, ii. p. 238, n. 9322 (1870); *Shell. B. of Egypt*, p. 216 (1872); *Schleg. Mus. P.-B.* Columbæ, p. 117 (1873); *Heugl. J. f. O.* 1873, p. 151, 1874, p. 49; *id. Orn. N.O.-Afr.* ii. 2, p. clxx (1875); *Gurn. Rambl. of a Natural.* p. 179 (1876); *Gieb. Thes. Orn.* iii. p. 726 (1877); *Dress. B. of Eur.* vii. p. 49, pl. 464. f. 1 (1877); *Tayl. Ibis*, 1878, p. 372; *Saund. Yarrell's Brit. B.* iii. p. 24 (1882); *Shell. Ibis*, 1883, p. 300; *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 277 (1890) (N.E. Afr., Turkey).

Turtur auritus, var., *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 41. specim. *d*, *h*, *i*, *k* (1856).

Turtur auritus, var. isabellina, *Antin. Cat. Coll. Ucc.* p. 91 (1864) (Abussembul, Nubia).

Turtur turturoides, *Württ. Ic.* no. 64; *Heugl. J. f. O.* 1867, p. 301.

Turtur leoninus, *Württ. Coll. Merg.*; *Heugl. J. f. O.* 1867, p. 301.

Turtur sharpii, *Shell. Ibis*, 1870, p. 447 (Egypt), 1871, p. 143; *Heugl. Orn. N.O.-Afr.* i. 2, p. 851 (1871); *Shell. B. Egypt*, p. 215, pl. 10. f. 2 (1872); *Gieb. Thes. Orn.* iii. p. 728 (1877); *Tristr. Cat. Coll. B.* p. 39 (1889).

Very similar to *T. turtur*, but differs as follows:—Entire head and back of the neck sandy brown, passing into fawn-colour on the upper back; chin and median part of the throat paler; lower back fawn-colour, with dusky centres to the feathers, and only very slightly washed with grey on the middle of the back and sides of the rump; greater upper tail-coverts and two centre tail-feathers dusky brown, broadly tipped with fawn-colour; remainder of the tail as in *T. turtur*, only that the white end is partially washed with fawn-colour towards the centre feathers; wings as in *T. turtur*, only there is less extent of leaden grey on the coverts, and no grey shade on the quills; the sandy rufous of the sides of the head and upper throat gradually passes into rich vinous pink, occasionally with a sandy shade on the sides and lower throat; remainder as in *T. turtur*. Total length about 10·8 inches, wing 6, tail 5, bill 0·7, tarsus 0·8. (*Shelley*.)

Female. Similar to the male, only somewhat duller.

Young. Paler than the adult, and of a pale sandy also on the lower throat and breast.

Hab. N.E. Africa (and Asia Minor?).

a, *b*. Ad. sk.	Assuan, Egypt.	Parreys Coll.	
c. Ad. sk.	Egypt (*G. E. Shelley*).	Shelley Coll.	Types of *T. sharpii*, Shelley.
d. ♂ ad. sk.	Fayoom, Egypt (*G. E. Shelley*).	Shelley Coll.	
e. ♀ ad. sk.	Cairo, Egypt (*E. C. Taylor*).	Shelley Coll.	
f. Ad. sk.	No locality.	Purchased.	
g. Juv. sk.	[Brussa.]	Parreys Coll.	

3. Turtur ferrago.

Columba meena, ♂, *Sykes, P. Z. S.* 1832, p. 149 (migratory, Dukhún).

Turtur auritus, *Vigne* (*nec auct.*), *P. Z. S.* 1841, p. 6 (Alpine Panjab).

Columba ferrago, *Eversm. Add. ad Zoogr. Rosso-As.* fasc. iii. p. 17 (1842) (Songaria); *Strickl. Ann. & Mag. N. H.* xix. p. 186 (note) (1847); *Bp. Rev. Crit. Orn. Eur.* p. 75 (1850); *Eversm. J. f. O.* 1853, p. 292.

Columba pulcrata, *Hodgs. in Gray's Zool. Misc.* p. 85 (1844) (descr. nulla).

Columba orientalis, *Layard* (*nec Lath.*), *Ann. & Mag. N. H.* (2) xiv. p. 62 (1854) (Ceylon).

Turtur ferrago, *Rchnb. Tauben*, ii. p. 68 (1862); *Wardl. Rams. Ibis*, 1880, p. 68; *Scully, Ibis*, 1881, p. 584 (Gilgit); *Bidd. Ibis*, 1882, p. 286 (Gilgit); *Saund. Yarr. Brit. B.* iii. p. 23 (1882); *Severtz. Ibis*, 1883, p. 71 (Pamir Range); *Pleske, Mém. Ac. Sc. St. Pétersb.* (7) xxxvi. n. 3, p. 46 (1888) (Turkestan).

Turtur rupicolus, *Jerd.* (*nec Pall.*?) *B. of Ind.* iii. p. 476 (1864); *Beav. Ibis*, 1868, p. 374; *Brooks, Ibis*, 1869, p. 354 *Hume, Ibis*,

1870, p. 438; *G. R. Gr. Hand-list*, ii. p. 238, n. 9313 (part.) (1870); *Brooks, Str. Feath.* iii. p. 256 (1875); *Dress. Ibis*, 1876, p. 321; *Fairb. Str. Feath.* iv. p. 262 (1876) (Mahabaleshwar); *Gieb. Thes. Orn.* iii. p. 728 (part.) (1877); *Wardl. Rams. Ibis*, 1879, p. 449 (Afghanistan); *Marsh. Ibis*, 1884, p. 421 (Chamba); *Brooks, Ibis*, 1889, p. 575 (Cashmere); *Tristr. Cat. Coll. B.* p. 38 (1889); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 277 (1890).

? Turtur meena, *Tytl. Ibis*, 1868, p. 203; ? *Pelz. Ibis*, 1868, p. 320 (Pangi); *Brooks, Ibis*, 1869, p. 60.

Turtur monticolus (*errore*), *Blyth, Ibis*, 1868, p. 355.

Columba gelastes, *Severtz.* (*nec Temm.*) *Turk. Jevotn.* p. 68 (1873); *id. J. f. O.* 1875, p. 180.

Turtur vitticollis, "*Hodgs.*," *Hume, Lahore to Yark.* p. 274 (1873) (Sindh Valley, Kashmir).

Turtur pulchrata, *Hume, Nests & Eggs*, p. 500 (1875); *Butl. & Hume, Str. Feath.* iv. p. 3 (1876); *Hume, Str. Feath.* vi. p. 421 (1878).

Turtur gelastes, *Finsch* (*nec Temm.*), *Ibis*, 1877, p. 60 (W. Siberia).

Turtur pulchratus, *Hume, Str. Feath.* viii. p. 110 (1879); *Legge, B. of Ceyl.* p. 711 (1880); *Sharpe, Sc. Res. Sec. Yark. Miss.*, Aves, p. 119 (1891).

Turtur orientalis ferrago, *Seebh. B. Jap. Emp.* p. 161 (1890) (Nepal, Turkestan, S.W. Siberia).

Similar to *T. turtur*, but larger, with the edges of the scapulars and upper wing-coverts more rusty, and with the tips of the feathers on the sides of the neck lavender-grey; abdomen whitish, under tail-coverts and terminal band across the tail almost pure white as in *T. turtur*. Total length 12·5 inches, wing 7·3 to 7·6, tail 5·2, bill 0·65, tarsus 1.

Hab. S.W. Siberia, Turkestan, Cashmere, and Nepal; it winters in Central India; straggler in Ceylon.

a. ♀ ad. sk.	Karakal, Turkestan, May.	Dr. Otto Finsch [C.].
b, c. ♂ ad. et ad. sk.	Tschinas, Turkestan, May (*Russow*).	Seebohm Coll.
d. Ad. sk.	Chilisconio, Aug. (*Stoliczka*).	India Museum [P.].
e. Ad. sk.	Yarkand, May (*Stoliczka*).	India Museum [P.].
f, g. ♂ ad. et ad. sk.	Byan Kheyl, May, June (*R. G. W. R.*).	Tweeddale Coll.
h. Ad. sk.	Cashmere, July (*Dr. Jerdon*).	Tweeddale Coll.
i. ♂ ad. sk.	Gilgit, June (*J. Biddulph*).	Tweeddale Coll.
k. ♂ ad. sk.	Gilgit Valley, June (*J. Biddulph*).	Hume Coll.
l. ♂ ad. sk.	Astor, 11,500 feet, Sept.	J. Biddulph, Esq. [C.].
m, n. ♂ ♀ ad. sk.	Simla, June, July (*R. C. Beavan*).	Tweeddale Coll.
o–u. ♂ ♀ ad. et imm. sk.	Simla, July–Oct. (*W. Davison and A. O. H.*).	Hume Coll.
v, w, x. ♂ ♀ ad. sk.	Simla, Oct. (*W. Davison*).	Salvin-Godman Coll.
y. ♀ ad. sk.	Mahasso, Simla, Sept. (*W. Davison*).	Salvin-Godman Coll.
z. Ad. sk.	Mahasso, Simla, Sept. (*W. Davison*).	Hume Coll.

a'. ♀ ad. sk.	Fagoo, Simla, Aug. (*R. C. Beavan*).	Tweeddale Coll.
b'. ♂ ad. sk.	Mutiana, June.	Hume Coll.
c'. ♂ juv. sk.	Umballah, Sept. (*R. C. Beavan*).	Tweeddale Coll.
d'. ♂ ad. sk.	Almorah, Aug.	Hume Coll.
e'. Juv. sk.	Kumaon (*Strachey*).	India Museum [P.].
f'. ♀ ad. sk.	Kumaon, April (*G. King*).	Hume Coll.
g'. Imm. sk.	Naini Tal, Oct.	Hume Coll.
h'. Ad. sk.	Oudh.	Hume Coll.
i'. ♂ ad. sk.	Futtehgurh, April (*A. Anderson*).	Seebohm Coll.
k'. Ad. sk.	Lucknow.	Colonel Way [P.].
l'. ♀ ad. sk.	Putla, Feb. (*A. Anderson*).	Seebohm Coll.
m', *n'*, *o'*. Ad. sk.	Nepal.	B. H. Hodgson, Esq. [P.].
p'. Ad. sk.	Nepal (*Hodgson*).	India Museum [P.].
q'. ♀ ad. sk.	NepalValley, Nov.(*J. Scully*).	Hume Coll.
r', *s'*, *t'*. ♂ ♀ ad. sk.	Nepal Valley, May, Sept., Nov. (*J. Scully*).	Seebohm Coll.
u', *v'*. ♂ ♀ ad. sk.	Nepal Plains, Dec.	Seebohm Coll.
w'. ♀ imm. sk.	Residency Grounds, Nepal, Oct. (*J. Scully*).	Hume Coll.
x', *y'*. ♂ ad. et ad. sk.	Native Sikhim, April (*L. Mandelli*).	Hume Coll.
z'. Ad. sk.	Saugor (*Hooper*).	India Museum [P.].
a'', *b''*, *c''*. ♂ ad. sk.	Saugor, Jan.	Hume Coll.
d''. ♀ ad. sk.	Seoni Dist., March.	Hume Coll.
e''. Ad. sk.	Mirzapur Dist., March (*R. Thompson*).	Hume Coll.
f''. ♂ ad. sk.	Mhow, Dec.	Colonel Swinhoe[P.].
g''. ♀ ad. sk.	Ajnod, Dec.	Colonel Swinhoe[P.].
h'', *i''*. ♀ ad. sk.	Khandeish, March, Dec. (*W. Davidson*).	Hume Coll.
k''. Ad. sk.	W. Khandeish, May.	Hume Coll.
l''. ♀ ad. sk.	Mahabaleshwar, May (*S. B. Fairbank*).	Hume Coll.
m''. Ad. sk.	Wynaad, April (*W. Davison*).	Hume Coll.
n''. Ad. st.	No locality (*Massena Coll.*).	E. Wilson, Esq. [P.].

4. Turtur orientalis.

Tourterelle brune de la Chine, *Sonn. Voy. Ind.* ii. p. 177 (1782).

Chinese Turtle, *Lath. Syn.* ii. 2, p. 647, n. 40 (1783) (*ex Sonnerat*).

Columba turtur *ε*. Turtur sinensis fuscus, *Gm. S. N.* i. p. 786 (1788) (*ex Sonnerat*).

Columba orientalis. *Lath. Ind. Orn.* ii. p. 606, n. 48 (1790) (*ex Sonnerat*); *Vieill. N. D.* xxvi. p. 377 (1818); *Wagl. Syst. Av.* Columba, sp. dub. 10 (1827); *Sundev. Svenska Foglarna*, p. 172 (1860).

Columba turtur, var. *d*, *Bonn. Tabl. Enc., Orn.* p. 248 (1790).

Colombe tourterelle, var., *Temm. Pig.* i. fam. seconde, art. Tourterelle (1808–11).

Columba rupicola, *Pall. Zoogr. Rosso-As.* i. p. 566 (Lena and Yenisey) (1811) (*ex Gmelin, MS.*).

Columba turtur, var. *c*, *Temm. Pig. et Gallin.* i. p. 480 (1813).
Columba meena ♀, *Sykes, P. Z. S.* 1832, p. 149 (Dukhun).
Columba agricola, *Tickell, J. A. S. B.* ii. p. 581 (1833).
Columba gelastis, *Temm. Pl. Col.* 550 (livr. 93 ?*) (1835); *Knip & Prév. Pig.* ii. pl. 27 (1838–43); *Sundev. Œfvers. K. Vet.-Akad. Förh.* 1851, p. 183 (Sweden); ? *Middend. Sibir. Reis.* ii. 2, p. 189 (1853) (Ochottsk); *Nilss. Skand. Faun.* i. p. 569 (1858) (Sweden, 1842, and Oct. 1850); *Wright, Bidr. till Finl. Naturk. Etn. o. Stat.* v. p. 311 (1859); *Blyth, Ibis*, 1867, p. 149.
Turtur meena, *G. R. Gr. Gen. B.* ii. p. 472, n. 2 (1844); *Hartl. Erst. Nachtr. Verz.* p. 17, n. 177 (1844); *Blyth, J. A. S. B.* xiv. p. 875 (1845); *Gray, Cat. Hodgs. Coll. Brit. Mus.* p. 123 (1846); *Blyth, Ann. & Mag. N. H.* xix. p. 185 (1847); *Rchnb. Syn. Av.* f. 1359 (1847) (*ex Pl. Col.* 550); *Bp. Consp. Av.* ii. p. 60 (1854); *id. Compt. Rend.* xl. pp. 15, 219, n. 174 (1855); *id. Coup d'œil Ordre Pig.* pp. 29, 57, n. 174 (1855); *Cass. Perry's Exped. Jap.* ii. p. 222 (1858) (Japan); *Rchnb. Tauben*, i. p. 68 (1862); *Jerd. B. of Ind.* iii. p. 476 (1864); *Blyth, Ibis*, 1865, p. 399, 1867, p. 149, 1868, p. 355; *Beav. Ibis*, 1868, p. 375; *Hume, Ibis*, 1870, p. 438; *id. Lahore to Yark.* p. 277 (1873) (Central and Southern India); *id. Nests & Eggs*, p. 501 (1875); *id. Str. Feath.* iii. p. 163 (1875); *Blyth, B. Burm.* p. 145 (1875); *Fairb. Str. Feath.* iv. p. 262 (part.) (1876) (Mahabaleshwar in winter); *Anders. Yunn. Exped.* p. 665 (1878); *Hume & Davis. Str. Feath.* vi. p. 420 (1878); *Hume, Str. Feath.* viii. p. 110 (1879); *Tiraud, Bull. Com. Agr. et Ind. Cochinch.* (3) i. p. 142, n. 256 (1879); *Salv. Cat. B. Strickl. Coll.* p. 545 (1882); *Oates, Str. Feath.* x. p. 235 (1882); *id. B. Burm.* ii. p. 292 (1883); *Sclat. List Vert. An.* 8th ed. p. 452 (1883); *Swinh. & Barn. Ibis*, 1885, p. 130; *Hume, Str. Feath.* xi. p. 298 (1888); *Salvad. Ann. Mus. Civ. Gen.* (2) vii. p. 424 (1889); *Hartert, J. f. O.* 1889, p. 433 (Assam); *Tristr. Cat. Coll. B.* p. 38 (1889).
Turtur orientalis, *Blyth, J. A. S. B.* xiv. p. 876 (note) (1845) (Java!); *id. Ann. & Mag. N. H.* xix. p. 186 (note) (1847); *Strickl. ibid.* (1847); *Hutt. J. A. S. B.* xvii. 2, p. 13 (1848); ? *Adams, P. Z. S.* 1858, p. 498, 1859, p. 187 (Cashmere and Ladak); *Swinh. Ibis*, 1860, p. 63; 1861, pp. 49, 341; *Schleg. Mus. P.-B.* Columbæ, p. 118 (India and China) (1873); *Dress. B. of Eur.* vii. p. 45 (part.), pl. 463 (1876); *Anders. Yunn. Exped.* p. 666 (1878); *Scully, Str. Feath.* viii. p. 340 (part.) (1879); *Wardl. Rams. Ibis*, 1880, p. 69; *Salv. Cat. B. Strickl. Coll.* p. 545 (1882); *Saund. Yarrell's Brit. B.* ii. p. 24 (1882); *Seebh. Ibis*, 1884, pp. 35, 266, 1887, p. 179; *Stejn. Zeitschr. ges. Orn.* 1887, p. 171; *Seebh. B. Jap. Emp.* p. 160 (1890); *Backhouse, Natural.* 1890, p. 258; *Seebh. P. Z. S.* 1890, p. 361 (England); *id. Ibis*, 1890, p. 388, 1892, p. 95 (Tsu-sima).
Columba (Turtur) gelastes, *Temm. & Schleg. Faun. Jap., Aves*, p. 100, pl. 60 B (1847).
Turtur gelastis, *Rchnb. Syn. Av.* Columbariæ, *Norit.* t. 240. f. 2585 (1851) (*ex Faun. Jap.*); *Swinh. Ibis*, 1862, p. 261; *Sclat. P. Z. S.* 1864, p. 139 (India); *Schleg. Dierent.* p. 206 (1864); *Swinh. P. Z. S.* 1870, pp. 446, 602; *Finsch, Verh. z.-b. Ges. Wien*, 1872, p. 264; *Swinh. Ibis*, 1874, p. 162; *Wald. Tr. Zool. Soc.* ix. p. 220 (1875);

* The number of the livraison is not mentioned in the text to Pl. Col. 550; but as plates 549 and 551 both belong to livraison 93 (1835), we may safely suppose that pl. 550 should bear the same date.

Blakist. & Pryer, Ibis, 1878, p. 227; *iid. Tr. As. Soc. Jap.* viii. p. 204 (1880), x. p. 129 (1882) (Kurile Is.); *Blakist. Chrysanth.* 1882, p. 522, 1883, p. 28; *id. Amend. List B. Jap.* p. 43 (1884); *Stejn. Pr. U.S. Nat. Mus.* x. pp. 400, 425 (1887); *Tristr. Cat. Coll. B.* p. 38 (1889).

Columba turtur, *Schrader* (*nec Linn.*), *J. f. O.* 1853, p. 243 (Ostfinmark).

Turtur rupicola, *Bp. Consp. Av.* ii. p. 60 (1854); *id. Compt. Rend.* xl. pp. 15, 219, n. 173 (1855); *id. Coup d'œil Ordre Pig.* pp. 29, 57, n. 174 (1855); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 41 (part.?) (1856) (Japan, Nepal); *Rchnb. Tauben*, i. p. 67 (part.), t. 240. f. 2585, t. 246. f. 1359 (1862); *Blakist. Ibis*, 1862, p. 329; *Cass. Pr. Acad. Philad.* 1862, p. 320; *Gray, Cat. Hodgs. Coll. B. M.* p. 67 (1863); *Swinh. P. Z. S.* 1863, p. 306; *id. Ibis*, 1863, p. 397 (Formosa), 1865, p. 541, 1866, pp. 313, 401, 1867, p. 396; *Blyth, Ibis*, 1867, p. 149; *Whitely, Ibis*, 1867, p. 204; *Degl. & Gerbe, Orn. Eur.* ii. p. 15 (1867); *Reinh. Vidensk. Medd. fra d. Naturhist. Foren.* f. 1868, p. iv; *Collett, Forh. Vid.-Selsk. Christ.* xv. p. 156 (Ostfinmark) (1868); ? *Dyb. J. f. O.* 1868, p. 336; *Swinh. Ibis*, 1870, p. 356; *id. P. Z. S.* 1871, p. 397; *Holdsw. P. Z. S.* 1872, p. 467; *Adam, Str. Feath.* i. p. 390 (1873); *Schleg. Mus. P.-B.* Columbæ, p. 118 (Japan, Daouria, and Sweden) (1873); *Dyb. J. f. O.* 1873, p. 97, 1874, p. 336; *Collett, Carte Zoogéogr., B* (1875); *Tacz. Bull. Soc. Zool. Fr.* i. p. 241 (1876) (E. Siberia); *McVean, Pr. R. Phys. Soc. Edinb.* 1877, p. 149 (Yedo); *David & Oust. Ois. Chine*, p. 385 (1877); *Collin, Skandin. Fugle*, p. 394 (1877); *Bidd. Ibis*, 1881, p. 92 (Gilgit); *Bolau, J. f. O.* 1881, p. 61; *Slater, Ibis*, 1882, p. 435; *Tacz. P. Z. S.* 1887, p. 609 (Corea), 1888, p. 467; *Cord. Ibis*, 1888, p. 222 (Cashmere); *Dorries, J. f. O.* 1888, p. 88; *Hartl. Abh. nat. Ver. Brem.* xi. p. 406 (extr. p. 14) (1890); *Styan, Ibis*, 1891, pp. 328, 498 (China); *Oust. Ann. Sc. Nat.* (vii.) xii. p. 312 (Thibet).

Turtur (?) vitticollis minor, *Temm. fide Bp. Consp. Av.* ii. p. 60 (1854).

Turtur (?) vitticollis major, *Temm. fide Bp. ibid.*

Turtur erythrocephalus, *G. R. Gr. MS. in Mus. Brit.* 1854; *Bp. Consp. Av.* ii. p. 60 (1854) (Africa merid.!*); *id. Compt. Rend.* xl. pp. 16, 219, n. 175 (1855); *id. Coup d'œil Ordre Pig.* pp. 29, 57, n. 175 (1855); *id. Compt. Rend.* xliii. p. 942 (1856); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 41 (1856) (Cape of Good Hope!); *Rchnb. Tauben*, i. p. 69 (1862); *G. R. Gr. Hand-list*, ii. p. 238, n. 9312 (1870); ? *Schleg. Mus. P.-B.* Columbæ, p. 118 (1873) (S. Africa); *Gieb. Thes. Orn.* iii. p. 726 (1877); *Shell. Ibis*, 1883, p. 301; *Sharpe, Layard's B. S. Afr.* p. 565 (1884).

? Turtur risoria, *Burgess* (*nec Linn.*), *P. Z. S.* 1855, p. 34 (India).

? Turtur sp., *Adams, P. Z. S.* 1859, p. 187.

Columba (Peristera) turtur, var. gelastis, *Schrenck, Reis. Amur-L.* i. p. 389 (1860).

Columba turtur, var. gelastes, *Radde, Reis. S. v. O.-Sibir.* ii. p. 283 (1863); *Homey. J. f. O.* 1870, p. 169.

Turtur auritus, var., *Reinh. Vidensk. Medd. fra d. Naturhist. Foren.* f. 1863, p. 63 (4th or 20th Nov. 1863, Jutland).

Peristera rupicola, *Collett, Forh. Vid.-Selsk. Christ.* xv. p. 156, n. 128 (note).

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* Exactly the same as the Indian specimens; the locality, no doubt, is wrong.

Turtur rupicolus, part., *G. R. Gr. Hand-list*, ii. p. 238, n. 9313 (1870); *Pelz. & Lorenz, Ann. Naturh. Hofmus.* iii. p. 48 (1888) (Japan); *Hartert. Kat. Vogelsamml.* p. 187 (1891) (Japan).
Peristera gelastis, *Severtz. J. f. O.* 1875, p. 180.
Turtur stimpsoni, *Stejn. Pr. U.S. Nat. Mus.* 1887, pp. 399, 426 (Liu-Kiu Islands) *.
Turtur orientalis gelastis, *Stejn. Pr. U.S. Nat. Mus.* 1887, p. 426 (Japan).

Similar to *T. ferrago*, but the abdomen vinous reddish instead of whitish; the under tail-coverts grey; terminal band across the tail lavender-grey. As a rule, the Indian and Burmese birds (*C. meena* ♀, Sykes) are smaller and have the under tail-coverts of a deeper shade, while the Japanese and Chinese birds are larger and have the under tail-coverts a shade lighter.

Hab. From the base of the Himalayas to Central India, and through the Burmese countries to Formosa, Mandchuria, Corea, and Japan; accidental in Europe.

a, b, c. Ad. et juv. sk.	Nepal.	B. H. Hodgson, Esq [P.].
d, e. ♂ ad. sk.	Nepal Valley, May, Aug. (*J. Scully*).	Seebohm Coll.
f–k. Ad. sk.	Native Sikkim, March–May (*L. Mandelli*).	Hume Coll.
l, m, n. Ad. sk.	Sikkim, March (*L. Mandelli*).	Hume Coll.
o–r. Ad. sk.	Darjeeling.	Hume Coll.
s, t. Ad. sk.	Darjeeling (*L. Mandelli*).	Seebohm Coll.
u–x. Ad. et juv. sk.	Bootan (*Pemberton*).	India Museum [P.].
y. ♀ ad. sk.	**Bhotan Doars, Feb. (*L. Mandelli*).**	**Hume Coll.**
z. Ad. sk.	Bhotan Doars.	Seebohm Coll.
a', b', c'. Ad. sk.	Assam (*McClelland*).	India Museum [P.].
d'. Ad. sk.	Suddya, Assam, March (*J. Cockburn*).	Hume Coll.
e', f'. ♂ ad. et ♀ juv. sk.	Shillong, June (*A. W. Chennell*).	Tweeddale Coll.
g', h'. ♂ ♀ ad. sk.	Dibrughur, May, Dec. (*J. R. Cripps*).	Hume Coll.
i'. Ad. sk.	Cachar, March.	Hume Coll.
k', l'. ♂ ad. et ad. sk.	N. Khasia Hills, March, Nov. (*A. W. Chennell*).	Tweeddale Coll.
m'. Ad. sk.	Khasia Hills.	Tweeddale Coll.
n'. Ad. sk.	Khasia Hills.	Hume Coll.
o', p'. ♂ ♀ ad. sk.	Manipur, Feb., March (*A. O. H.*).	Hume Coll.
q', r'. ♂ ad. sk.	Maunbhoom, Dec. (*R. C. Beavan*).	Tweeddale Coll.
s'. Ad. sk.	Saugor (*Hooper*).	India Museum [P.].
t'. ♂ ad. sk. [albino].	Sambulpur, June.	Hume Coll.
u'. ♂ ad. sk.	Seoni Distr., March.	Hume Coll.

* I have examined in Mr. Seebohm's collection specimens from the Liu-Kiu Islands, and I cannot find that they differ from *T. orientalis*.

v'–x'. ♂ ♀ ad. ak.	Raipur, Jan.	Hume Coll.
a'', *b''*. Ad. et juv. ak.	Deccan (*Sykes*).	India Museum [P.]. (Types of *Columba meena*, Sykes).
c''. ♂ juv. ak.	Khandala, April (*S. B. Fairbank*).	Tweeddale Coll.
d'', *e''*. ♂ ♀ ad. ak.	Mahabaleshwar, March, May (*S. B. Fairbank*).	Hume Coll.
f''. Ad. ak.	India (*Jerdon*).	Gould Coll.
g''. Ad. ak.	[Cape of Good Hope.]	G. Campbell, Esq. [P.]. (Type of *T. erythrocephalus*, Gray.)
h''. Ad. ak.	Burmah (*Houghton*).	Tweeddale Coll.
i''. Ad. ak.	Burmah (*Houghton*).	Salvin-Godman Coll.
k''. ♀ ad. ak.	Upper Burmah, Feb.	Dr. J. Anderson [C.].
l''. Ad. ak.	Yunnan, March.	Dr. J. Anderson [C.].
m''. ♂ ad. ak.	Lower Pegu, March.	E. W. Oates, Esq. [C.].
n''. ♂ imm. ak.	Pegu, Feb.	E. W. Oates, Esq. [C.].
o''. ♂ juv. ak.	Tonghoo, Feb. (*R. G. W. R.*)	Tweeddale Coll.
p''. ♀ ad. ak.	Kyouk-kyee, Jan. (*R. G. W. R.*).	Tweeddale Coll.
q'', *r''*. Ad. ak.	Karen Hills, Jan. (*R. G. W. R.*).	Tweeddale Coll.
s''. ♂ ad. ak.	Karen-Nee, March (*R. G. W. R.*).	Tweeddale Coll.
t''. ♀ juv. ak.	Kyonk-nyat, Jan. (*W. Davison*).	Hume Coll.
u''. ♂ ad. ak.	Pine-forests, Salween, Feb. (*W. Davison*).	Hume Coll.
v'', *w''*, *x''*. ♀ ad. et juv. ak.	Pahpoon, Dec., Jan. (*W. Davison*).	Hume Coll.
y''. ♀ ad. ak.	Pahpoon, Feb. (*W. Davison*).	Salvin-Godman Coll.
z''. ♂ ad. ak.	Chuan-che, May (*Prjevalsky*).	Seebohm Coll.
a^3, b^3. ♂ ad. et ad. ak.	S. of Manchuria, June.	Dr. James [P.].
c^3. ♂ ad. ak.	S. Kintang, April.	Mrs. Ince [P.].
d^3, e^3. Juv. ak.	Amoy, China, Jan., Nov. (*R. Swinhoe*).	Seebohm Coll.
f^3. Ad. ak.	Swatow, China, March (*R. Swinhoe*).	Tweeddale Coll.
g^3, h^3. ♀ ad. et ad. ak.	Hoopih, March (*R. Swinhoe*).	Seebohm Coll.
i^3. Juv. ak.	Takow, Jan. (*R. Swinhoe*).	Seebohm Coll.
k^3. ♂ ad. ak.	Canton (*Tuckett*).	Tweeddale Coll.
l^3. ♀ ad. ak.	Ningpo, Dec. (*R. Swinhoe*).	Seebohm Coll.
m^3. Ad. ak.	Chefoo, May (*R. Swinhoe*).	Seebohm Coll.
n^3. Ad. ak.	Fokien.	Gould Coll.
o^3. ♂ ad. ak.	China.	Gould Coll.
p^3, q^3. Ad. ak.	China.	Seebohm Coll.
r^3. Ad. ak.	Tchang, Dec.	W. Pratt, Esq. [C.].
s^3, t^3. Ad. ak.	Formosa, March, Oct. (*R. Swinhoe*).	Seebohm Coll.
u^3. ♂ ad. ak.	Soul, Corea, April.	C. W. Campbell, Esq. [P.].
v^3. Ad. ak.	Hamilton Is.	A. G. Wilday, Esq. [P.].
w^3. Ad. st.	Japan.	Leyden Museum.

x^3. Ad. sk.	Japan.	Tweeddale Coll.
y^3. Ad. sk.	Nagasaki, Japan.	Tweeddale Coll.
z^3, a^4. ♂ ad. et juv. sk.	Nagasaki, Japan, Dec.	T. Ringer, Esq. [P.].
b^4. ♂ ad. sk.	Hakodadi, Japan, April (*Capt. Blakiston*).	Tweeddale Coll.
c^4. ♀ juv. sk.	Hakodadi, Japan, June (*H. Whitely*).	Tweeddale Coll.

5. Turtur lugens.

Columba lugens, *Rüpp. Neue Wirbelth.* p. 64, t. 22. f. 2 (Dongola, Egypt) (1835–40); *Des Murs, in Lefebv. Voy. Abyss., Ois.* p. 141 (1845–50); *Finsch & Jesse, Tr. Zool. Soc.* vii. p. 289 (1870).

Turtur lugens, *G. R. Gr. List Gallinæ Brit. Mus.* p. 12 (1844); *id. Gen. B.* ii. p. 472, n. 3 (1844); *Rüpp. Syst. Ueb.* p. 100 (1845); *Rchnb. Syst. Av.* f. 1372 (1847); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 43 (1856); *Bp. Compt. Rend.* xliii. p. 942 (1856); *Heugl. Syst. Ueb.* n. 516 (1856); *id. J. f. O.* 1867, p. 196; *Blanf. Geol. & Zool. Abyss.* p. 416 (1870); *Blyth, Ibis*, 1870, p. 173; *Heugl. Orn. N.O.-Afr.* i. 2, p. 838 (1871), ii. App. p. clxix (1875); *Schleg. Mus. P.-B.* Columbæ, p. 119 (1873); *Gieb. Thes. Orn.* iii. p. 727 (1877); *Shell. P. Z. S.* 1881, p. 596 (Pangani), 1882, p. 310; *id. Ibis*, 1883, p. 302; *Salvad. Ann. Mus. Civ. Gen.* (2) i. p. 208 (1884); *Fischer, Zeitschr. ges. Orn.* 1884, p. 378; *id. J. f. O.* 1885, p. 119; *Hartl. Zoolog. Jahrb.* ii. p. 330 (1887); *Gigl. Ann. Mus. Civ. Gen.* (2) vi. p. 60 (1888); *Salvad. ibid.* p. 303 (1888); *Hartert, Kat. Vogelsamml.* p. 187 (1891).

Streptopelia lugens, *Bp. Consp. Av.* ii. p. 64 (1854); *id. Compt. Rend.* xl. pp. 18, 219, n. 186 (1855); *id. Coup d'œil Ordre Pig.* pp. 31, 57, n. 186 (1855); *Rchnb. Tauben*, i. p. 73, ii. p. 197, t. 248 f. 1372 (1862); *Heugl. J. f. O.* 1862, p. 293; *G. R. Gr. Hand-list*, ii. p. 238, n. 9324 (1870); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 277 (1890).

? Peristera lugens, *C. L. Brehm, Vogelf.* p. 258 (1855) (Balkan ! und Nordost Africa).

Turtur sp. ?, *Schal. J. f. O.* 1885, p. 54; *Matsch. J. f. O.* 1887, p. 157; ? *Schal. J. f. O.* 1887, p. 228 (Tanganjika).

Adult male. Upper half of the head and nape slaty grey, paler on forehead, and passing into vinous shaded with grey on the sides of the head, throat, and chest; a patch of feathers on the sides of the neck black, with slaty grey edges; back brown, passing into slaty on the rump and upper tail-coverts; abdomen, under tail-coverts, under wing-coverts, and also the outermost and smaller upper wing-coverts slaty grey; median wing-coverts and scapulars brown, with paler edges; some of the innermost greater wing-coverts and tertials broadly edged with rufous; primary-coverts black, quills brown-black, the secondaries with a slight greyish tinge and with narrow grey edges; central tail-feathers brown, the lateral ones black, with a broad apical grey band: "iris orange-yellow, with a tinge of orange; feet pink; bill reddish dusky" (*Blanford*): or "iris golden red; bill dusky; feet lake-red" (*Antinori*). Total length about 10·5 inches, wing 7·25, tail 5, bill 0·68, tarsus 0·9.

Female. Similar to the male.

Younger birds have the forehead vinous grey, the sides of the head, throat, and chest more reddish.

Hab. Eastern Africa, from Abyssinia to Mamboio, about 7° S. lat.

a. Ad. st.	Abyssinia.	Purchased.
b. ♀ ad. sk.	Abyssinia, Sept.	Rüppell's Coll.
c. ♀ ad. sk.	Ankober, Abyssinia, June (*Harris*).	India Museum [P.].
d, *e*. ♂ ad. et juv. sk.	Angollallah, Abyssinia, May (*Harris*).	India Museum [P.].
f. ♀ ad. sk.	Senafé, Abyssinia, Feb.	W. T. Blanford, Esq. [C.].
g. ♂ ad. sk.	Near Tavita, Kilimanjaro, July.	H. C. V. Hunter, Esq. [P.].
h. Ad. sk.	Pangani R. (*Kirk*).	Shelley Coll.
i. Imm. sk.	Mamboio (*Kirk*).	Shelley Coll.

β. HOMOPELIA.

	Type.
Homopelia, *Salvad. MS.*	T. picturatus.

Range. Madagascarian subregion.

Key to the Species.

Feathers of the hind neck, and more conspicuously those on the sides of the neck, with black hidden bases and vinous or grey-vinous edges.

a. Central tail-feathers brown.

a'. Head and rump grey ..... *picturatus*, p. 400.

b'. Head not grey, but vinous, or vinous and brown.

a''. Head, neck, and upper mantle vinous.

a'''. Tips of the feathers on the sides of the neck with a distinct amethystine lustre; flanks distinctly greyish; lower parts less white ..... *aldabranus*, p. 411.

b'''. Tips of the feathers on the sides of the neck vinous red, with no amethystine lustre; flanks less grey, lower parts whiter ..... *comorensis*, p. 412.

b''. Upper parts, except the vinous forehead, almost uniform brown ..... *coppingeri*, p. 412.

b. Central tail-feathers, lower back, and rump dark grey; bill thicker than in any of the allied species ..... *rostratus*, p. 413.

6. Turtur picturatus.

Columba picturata, *Temm. Pig. et Gallin.* i. pp. 315, 490 (Ile de France) (1813); *Vieill. N. D.* xxvi. p. 357 (1818); *Steph. Gen. Zool.* xi. p. 85 (1819); *Vieill. Enc. Méth.* i. p. 383 (1823); *Temm. Pl. Col.* 242 (livr. 41, 1823); *Steph. Gen. Zool.* xiv. p. 280 (1826); *Desm. Dict. Sc. Nat.* xl. p. 352 (1826); *Wagl. Syst. Av.* Columba, sp. 61 (1827); *Less. Compl. de Buff., Ois.* viii. p. 50 (1837); *id.* op.

cit. 2nd ed. p. 282 (1838); *Knip & Prév. Pig.* ii. pl. 35 (1838–43); *G. R. Gr. Gen. B.* ii. p. 470, n. 29 (1844); *Rchnb. Syn. Av.* f. 1260 (1847).

Columba dufresnii, *Leach, fide Steph. Gen. Zool.* xi. p. 77, pl. 3 (Isle of France) (1819).

Peristera picturata, *Boie, Isis*, 1828, p. 327.

Columba picta, part., *Less. Tr. d'Orn.* p. 473 (Marianne Isl., *Q. & G.*, and Madagascar, *Delalande*) (1831).

Turtur versicolor, *Kittl.* (*nec* Columba versicolor, *Kittl.*) *fide Rchnb. Syn. Av.* f. 2 (1847), *et Bp. Consp. Av.* ii. p. 61 (1854).

Turtur picturatus, *Blyth, Cat. B. Mus. A. S. B.* p. 236, n. 1433 (Mauritius) (1849); *Bp. Consp. Av.* ii. p. 61 (1854); *id. Compt. Rend.* xl. pp. 16, 219, n. 178 (1855); *id. Coup d'œil Ordre Pig.* pp. 30, 57, n. 178 (1855); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 42 (1856); *Hartl. J. f. O.* 1860, p. 161; *id. Orn. Beitr. Faun. Madag.* p. 66 (1861); *Rchnb. Tauben*, i. p. 70, t. 224. f. 1260 (1862); *Maill. Not. sur l'île Réun.* p. 163 (1862); *Sclat. P. Z. S.* 1863, p. 164; *Roch & E. Newt. Ibis*, 1863, p. 167; *E. Newt. Ibis*, 1863, p. 454; *Pollen, N. T. D.* i. p. 319 (1863); *Coquerel, Bull. Soc. Acclim. Réun.* ii. p. 19 (1864); *Schleg. P. Z. S.* 1866, p. 424 (part., Madagascar, Mauritius, Réunion); *E. Newt. Ibis*, 1867, pp. 346, 354 (bill and wing, p. 355), 359 (Seychelles); *Grand. Rev. et Mag. de Zool.* 1867, p. 418; *Schleg. & Poll. Rech. Faun. Madag., Ois.* p. 113 (part.) (1868); *A. Newt. Ibis*, 1868, p. 477; *G. R. Gr. Hand-list*, ii. p. 238, n. 9314 (1870); *Sclat. P. Z. S.* 1871, p. 693; *Schleg. Mus. P.-B.* Columbæ, p. 129 (1873); ?*Milne-Edw. Ann. Sc. Nat.* (5) xix. p. 14, pl. xii. f. 2 (bones of the foot) (1874); *Bartl. P. Z. S.* 1875, p. 67; *Hartl. Vög. Madag.* p. 268 (1877); *Gieb. Thes. Orn.* iii. p. 727 (part.) (1877); *Oust. Bull. Soc. Philom.* 1878, p. 178; *Shell. Ibis*, 1883, p. 317 (syn. emend.); *Sclat. List Vert. An.* 8th ed. p. 452 (1883); *Milne-Edw. & Grand. Hist. Nat. Madag.* xii. *Ois.* p. 460, pls. 185, 186, 187 (1885); *Tristr. Cat. Coll. B.* p. 38 (1889); *Heine & Rchnw. Nomencl. Mus. Hein. Orn.* p. 277 (1890); *Sibree, Ibis*, 1891, p. 564.

Turtur prevostianus, *Bp. Consp. Av.* ii. p. 62 (1854) (=C. picta, *Mus. Paris*, Marianne Isl.*, *Quoy & Gaimard*); *id. Compt. Rend.* xl. pp. 16, 219, n. 180 (1855); *id. Coup d'œil Ordre Pig.* pp. 30, 57, n. 180 (1855); *G. R. Gr. List B. Trop. Isl.* p. 43 (1859); *Hartl. Orn. Beitr. Faun. Madag.* p. 67 (1861); *Rchnb. Tauben*, i. p. 71 (1862); *G. R. Gr. Hand-list*, ii. p. 238, n. 9391 (1870); *Gieb. Thes. Orn.* iii. p. 727 (1877); *Oust. Bull. Soc. Philom.* 1878, p. 179; *Wiglesw. Aves Polynes.* p. 54 (1891).

Turtur pictus, *Mus. Paris, fide Oust. Bull. Soc. Philom.* 1878, p. 179.

Turtur picturatus, var., *Tristr. Cat. Coll. B.* p. 38 (1889) (Bourbon).

Adult. Head grey, paler on the chin, and gradually shading into ashy vinous on the remainder of the neck and breast; feathers of the hind neck and sides of the neck have concealed bases black, and tips greyish vinous; the vinous of the neck shades into chestnut on the upper back, portion of the scapulars, and the smaller upper wing-coverts; apical portion of the scapulars, remainder of the wings, upper tail-coverts, and central tail-feathers brown; primaries with

* Marianne Island is one of the Seychelles (E. Newton, 'Ibis,' 1867, p. 359), and not the same as the Ladrone Islands, as, following Bonaparte, has been generally understood.

narrow whitish edges; lower back and rump slaty grey; abdomen pale vinous; under tail-coverts white; marginal under wing-coverts vinous, the inner ones and axillaries greyish brown; lateral tail-feathers slaty grey, with an obsolete subapical black band and a broad terminal grey band, which, on the inner web of the two outer feathers, is almost white; "iris yellowish brown; beak pinkish horn-colour; nostrils and skin round the eye and feet lake-red" (*E. Newton*). Total length 11·5 to 12 inches, wing 6·6 to 6·9, tail 4·6 to 5, bill 0·72, tarsus 1.

Young. "Greenish (or olive-brown?), the feathers edged with rufous; breast brown, with rufous lines; abdomen reddish" (*Milne-Edwards and Grandidier*).

Hab. Madagascar, from where apparently it has been introduced into several of the surrounding islands—Réunion, Mauritius, and Seychelles.

Two of the birds mentioned below, one from Anjuan, and the other said to be from Bourbon, differ in some respects from typical *T. picturatus*: both have the grey colour of the head washed with vinous, and, after all, they may belong to *T. comorensis*, although the rump is grey, as in *T. picturatus*.

a. Ad. st.	Madagascar.	Purchased.
b. Ad. sk.	Madagascar.	Sharpe Coll.
c. Ad. sk.	Madagascar, Aug. (*A. Crossley*).	Salvin-Godman Coll.
d. Ad. sk.	Ankafana, Madagascar, March.	Rev. Deans-Cowan Coll.
e. ♀ ad. sk.	Ankafana, Madagascar, Feb. (*Deans-Cowan*).	Shelley Coll.
f. Ad. sk.	Betsileo, Madagascar, March (*Deans-Cowan*).	Tweeddale Coll.
g. Imm. sk.	Central Madagascar.	Shelley Coll.
h. Ad. sk.		Shelley Coll.
i. Ad. sk.	Mauritius (*Bewsher*).	Shelley Coll.
k. Ad. sk. [var.].	Mauritius.	E. Wilson, Esq. [P.].
l. ♀ ad. sk. [var.].	Anjuan.	Purchased.

7. Turtur aldabranus.

Turtur aldabranus, *Sclat. P. Z. S.* 1871, pp. 623, 692, pl. 73 (Aldabra Is.); *Garr. P. Z. S.* 1873, pp. 468, 639, 1874, p. 256; *Hartl. Vög. Madag.* p. 270 (1877); *Oust. Bull. Soc. Philom.* 1878, p. 179; *Shell. Ibis*, 1883, p. 318; *Sclat. List Vert. An.* 8th ed. p. 454 (1883); *Milne-Edw. & Oust. Nouv. Arch. Mus.* (2) x. pp. 275, 276 (1889).

Turtur aldabramus (*errore*), *Gieb. Thes. Orn.* iii. p. 725 (1877).

Turtur aldebranus, *E. Newt. P. Z. S.* 1877, p. 300.

Adult male (*type*). Very similar to that of *T. comorensis*, from which it is scarcely distinct, differing only in having the tips of the feathers on the sides of the neck with a distinct amethystine lustre, the vinous tinge on the lower parts more extended on the abdomen, and the flanks more greyish, so that the lower parts appear less

whitish. Total length about 12 inches, wing 6·5, tail 5, bill 0·75, tarsus 1·1. (*Cambridge Mus.*)

Female (type). Similar to the male, only somewhat smaller: "bill lead-colour, with the tip yellowish; feet flesh-colour" (*Selater*); iris bright red. Total length about 11 inches, wing about 5·75 (*Cambridge Mus.*).

Hab. Aldabra Island.

I am indebted to Prof. A. Newton for the opportunity of examining the types of this species.

8. Turtur comorensis.

Turtur picturatus, part., *Schleg. P. Z. S.* 1866, p. 424; *Schleg. & Poll. Rech. Faun. Madag., Ois.* p. 113 (1868) (Mayotte); *Hartl. Vög. Madag.* p. 268 (part.) (1877).

Turtur comorensis, *E. Newt. P. Z. S.* 1877, pp. 300, 302 (Anjuan) (type examined); *Shell. P. Z. S.* 1879, p. 678 (syn. emend.); *id. Ibis*, 1883, p. 319; *Milne-Edw. & Oust. Nouv. Arch. Mus.* (2) x. p. 274 (1889).

Adult. Head, neck, upper mantle, and breast vinous, shading into white on the middle of the abdomen and under tail-coverts; smaller upper wing-coverts chestnut; remainder of the upper parts brown, with an olive tinge; on the back of the neck, and more conspicuously on the sides, the feathers have black, almost concealed, bases, and the tips greyish vinous; under wing-coverts brown, with a reddish wash; axillaries and flanks greyish brown; tail above brown, the lateral feathers with a broad terminal light band, almost white on the outer feathers; tail underneath black, with a broad greyish-white terminal band: "iris red; bill slate-colour, with the end yellow; legs pinkish red" (*Shelley*). Total length about 11·5 inches, wing 6·8 to 7, tail 5, bill 0·7, tarsus 1·1.

Hab. Comoro Islands.

a, b, c. Ad. sk.	Anjuan Is.	Purchased.
d, e. Ad. sk.	Anjuan Is. (*Kirk*).	Shelley Coll.

9. Turtur coppingeri.

Turtur coppingeri, *Sharpe, Rep. Voy. 'Alert,'* p. 484 (1884) (Glorioso Island).

Similar to *T. comorensis* and *T. aldabranus*, but differs in the brown colour of the upper parts, in having only the forehead vinous, contrasting somewhat with the brown colour of the crown and occiput; there is scarcely a tinge of chestnut on the smaller wing-coverts; the under tail-coverts have a distinct bluish-grey wash: "iris orange-red; bill dark; legs and feet dark red" (*Dr. Coppinger*). Total length about 12 inches, wing 6·5, tail 4·25, bill 0·7, tarsus 1·1.

Hab. Glorioso Island.

a. ♀ ad. sk.	Glorioso Island (*Dr. Coppinger*).	H.M.S. 'Alert' Exped. (Type of species.)

10. Turtur rostratus.

Columba picturata, var., *Prév. Pig.* ii. p. 66, text to pl. 35 (1838–43).
Turtur rostratus, *Bp. Consp. Av.* ii. p. 62 (Seychelles) (1854); *id. Compt. Rend.* xl. pp. 16, 219, n. 179 (1855); *id. Coup d'œil Ordre Pig.* pp. 30, 57, n. 179 (1855); *Hartl. Orn. Beitr. Faun. Madag.* p. 67 (1861); *Rchnb. Tauben*, i. p. 71 (1862); *E. Newt. P. Z. S.* 1867, p. 344; *id. Ibis*, 1867, pp. 336, 337, 354, f. wing and head, pp. 355, 359 (Marianne I.); *A. Newt. Ibis*, 1868, p. 477; *G. R. Gr. Hand-list*, ii. p. 238, n. 9320 (1870); *Schleg. Mus. P.-B.* Columbæ, p. 130 (1873); *Oust. Bull. Soc. Philom.* 1877, p. 101; *Hartl. Vög. Madag.* p. 269 (1877); *Oust. Bull. Soc. Philom.* 1878, p. 180; *Shell. Ibis*, 1883, p. 320; *Tristr. Cat. Coll. B.* p. 38 (1889).
Turtur picturatus, part., *Schleg. P. Z. S.* 1866, p. 424 (Mayotte); *Schleg. & Poll. Rech. Faun. Madag., Ois.* p. 113 (part.) (1868); *Gieb. Thes. Orn.* iii. p. 727 (part.) (1877).

Adult male. Upper part of the head, upper back, scapulars, and the lesser upper wing-coverts deep vinous purple; remainder of the head, neck, breast, and abdomen somewhat paler; feathers of the hind neck, and more conspicuously those of the sides of the neck, have black concealed bases and broad grey vinous tips; lower back, rump, and upper tail-coverts uniform lead-grey; remainder of the wing brown, the primaries with narrow pale vinous edges; vent greyish, under tail-coverts white; sides and under wing-coverts dark grey; central tail-feathers uniform grey; the lateral ones have a grey base, a broad terminal white band, and a black band between the white and the grey: "bill slate-black, with the end third yellow; legs reddish brown" (*Shelley*). Total length 10 inches, wing 5·8, tail 3·9, bill 0·8, tarsus 1·1.

Apparently *younger birds* are duller and darker, the sides lead-grey; the lower back, rump, upper tail-coverts, and central tail-feathers brown.

Hab. Seychelles.

a. ♂ ad. sk.	Marianne I., Seychelles.	Shelley Coll.
b. Ad. sk.	Marianne I., Seychelles.	Tweeddale Coll.
c, d. Ad. sk.	Praslin, Seychelles.	Salvin-Godman Coll.

γ. STREPTOPELIA.

	Type.
Streptopelia, *Bp. Consp. Av.* ii. p. 63 (1854)	T. risorius.

Range. Africa, S.W. Palæarctic Region, Indian and Oriental Regions, Indo-Malay Archipelago, and also Marianne or Ladrones Islands, where most likely one species has been introduced.

Key to the Species *.

A complete black collar on the nape; upper parts not mottled.
a. Upper parts, or back, scapulars, and inner half of the upper wing-coverts, earthy brown.
a'. Under wing-coverts lead-grey.
a''. Under tail-coverts grey.
a'''. Upper parts earthy brown, with no rufescent hue.
a^4. Under tail-coverts dark lead-grey, almost uniform; cheeks vinous with no grey tinge..... *semitorquatus*, p. 416.
b^4. Under tail-coverts grey, with distinct whitish edges; anterior part of the cheeks grey.
a^5. Under tail-coverts dark grey edged with whitish; breast vinous red ..... *shelleyi*, p. 419.
b^5. Under tail-coverts pale grey, with broad white edges; breast pale vinous ..... *ambiguus*, p. 419.

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* It is uncertain to which species the tame Dove belongs; the following synonymy applies to it:—

TURTUR RISORIUS.

Turtur torquatus, *Briss. Orn.* i. p. 95 (1760).
Columba risoria, *Linn. S. N.* i. p. 285, n. 33 (1766); *Scop. Ann. I.* p. 125, n. 182 (1769); *Gm. S. N.* i. p. 787, n. 33 (1788); *Lath. Ind. Orn.* ii. p. 607, n. 51 (1790); *Bonn. Tabl. Enc., Orn.* p. 248, pl. 82. f. 1 (1790); *Knip & Temm. Pig.* i. fam. seconde, pl. 44 (1808–11); *Temm. Pig. et Gallin.* i. pp. 323, 481 (part.) (1813); *Vieill. N. D.* xxvi. p. 377 (1818); *Steph. Gen. Zool.* xi. p. 71 (1819); *Horsf. Tr. Linn. Soc.* xiii. p. 183 (1821) (Java); *id. Zool. Res., Gener. Cat.* (1824); *Desm. Dict. Sc. Nat.* xl. pp. 349 (part.), 426 (1826); *Less. Tr. d'Orn.* p. 473 (part.) (1831) (Tonga Islands!); *Less. Compl. de Buff., Ois.* viii. p. 48 (part.) (1837); *id. op. cit.* 2nd ed. p. 282 (part.) (1838); *Sundev. Œfv. K. Vet.-Ak. Förh.* 1869, p. 586 (St. Barthelemy); *Gulliv. P. Z. S.* 1879, p. 489.
Tourterelle à collier, *D'Aubent. Pl. Enl.* 244; *Buff. Hist. Nat. Ois.* ii. p. 550, pl. 26 (1771).
Collared Turtle, *Lath. Syn.* ii. 2, p. 648, n. 42 (1783).
Columba alba, *Knip & Temm.* (*nec Gm.*) *Pig.* i. fam. seconde, p. 102, pl. 46 (1808–11) (var.); *Temm. Pig. et Gallin.* i. pp. 333, 484 (1813); *Steph. Gen. Zool.* xi. p. 70 (1819); *Desm. Dict. Sc. Nat.* xl. p. 351 (1826).
Columba risoria, var. cicurata, *Wagl. Syst. Av.* Columba, sp. 93 (1827).
Columba risoria, var. β, *Wagl. ibid.* (1827).
Peristera risoria, *Boie, Isis*, 1828, p. 327.
Turtur risorius, *Selb. Nat. Libr., Pigeons*, p. 170, pl. 17 (1835); *G. R. Gr. Gen. B.* p. 472, n. 4 (1844); *Rchnb. Syn. Av.* ff. 1365, 1366 (var. alba) (1847); *Blyth, Cat. B. Mus. A. S. B.* p. 235, n. 1430 (part., dom. var.) (1849); *Mitch. P. Z. S.* 1849, p. 172[1]; *Swinh. Ibis*, 1865, p. 541 (albino), 1866, p. 298; ? *Drake, Ibis*, 1869, pp. 151, 152 (Morocco, caged

[1] *Ectopistes migratorius* ♂ × *Turtur risorius* ♀.

b'''. Upper parts brown, more or less with a rufescent hue; anterior part of the cheeks very slightly tinged with grey; under tail-coverts grey, edged with white ..... *decipiens*, p. 420.

b''. Under tail-coverts white.

c'''. A vinous-red collar below the black one of the nape.

*c*⁴. Nuchal collar black; head vinous red, except the upper part which is grey..... *bitorquatus*, p. 421.

*d*⁴. Nuchal collar mealy black, the feathers distinctly edged with black; head almost entirely grey, with a slight vinous tinge on the hind part..... *dussumieri*, p. 423.

d'''. No vinous-red collar below the black one of the nape.

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birds); *Schleg. Mus. P.-B.* Columbæ. p. 125 (1873) (tame bird); *Gieb. Thes. Orn.* iii. p. 727 (1877); ? *Sclat. List Vert. An.* 8th ed. p. 454 (1883); *Günth. P. Z. S.* 1887, p. 503 (T. risorius ♀ × Fantail Pigeon ♂); *Stejn. Pr. U.S. Nat. Mus.* 1887, p. 428, pl. xxii. f. 4 (outer tail-feather); *Evans, Ibis*, 1891, p. 74; *Hartert, Kat. Vogelsamml.* p. 188 (part.) (1891).

Columba risoria domestica, *Temm. Pl. Col.* i. *Tabl. Méth.* p. 81 (1839).

Streptopelia risoria, *Bp. Consp. Av.* ii. p. 65 (part.) (1854); *id. Compt. Rend.* xl. pp. 18, 219, n. 189 (part.) (1885); *id. Coup d'œil Ordre Pig.* pp. 31, 57, n. 189 (part.) (1855); *Rchnb. Tauben*, i. p. 74 (part.), t. 247. ff. 1365, 1366, ii. p. 175 (1862); *G. R. Gr. Hand-list*, ii. p. 239, n. 9328 (part.) (1870); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 277 (1890).

Columba risoria (*errore*), *Schal. J. f. O.* 1877, p. 196 (Isola madre and Isola bella, Lago Maggiore).

Adult male. Upper parts yellowish bay or isabelline, greyer on the outer wing-coverts and secondaries; a broad black collar, edged above with whitish grey, on the hind neck; throat almost pure white; breast pale isabelline, changing into white on the abdomen, vent, and under tail-coverts; sides pale grey; under wing-coverts pale grey, almost white; primaries pale brown; central tail-feathers isabelline grey, the lateral ones darkish grey, changing into white towards the tips; outer web of the outer tail-feather almost white; tail below blackish at the base, the black sharply defined from the apical half, which is white, but tinged with grey near the black part: bill light horn; irides orange; feet pink-red. Total length about 10 inches, wing 6, tail 4·5, bill 0·6, tarsus 0·85.

Female. Similar to the male, only somewhat smaller.

There is a variety completely white, which Temminck and others have considered a distinct species (*C. alba*).

This bird has become very common everywhere in a domesticated state.

a. Ad. sk.	India.	
b. ♂ ad. sk.	Preston Hall Aviary.	Gould Coll.
c. ♀ ad. sk.	Staffordshire, March.	E. W. H. Blagg, Esq. [P.].
d. Skeleton.		Darwin Coll.
e. Skeleton.		Purchased.

Hybrids between **Turtur risorius** *and* **Columba livia**, *var.* **laticauda**.

a-f. ♂ ad. et ad. sk.	**Bred in confinement.**	**Dr. Günther [P.].**

e^4. Breast vinous grey.
e^5. Darker and more grey on the breast ..... *capicola*, p. 424.
d^5. Paler and more vinous on the breast ..... *damarensis*, p. 426.
f^4. Breast, neck, and sides of the head pure vinous pink, with no grey tinge ..... *vinaceus*, p. 428.
b'. Under wing-coverts pale grey, the inner ones almost whitish.
c''. Abdomen and under tail-coverts white; head, neck, and breast pale vinous .. *roseogriseus*, p. 429.
d''. Abdomen and under tail-coverts grey; head, neck, and breast pale vinous, but the hind part of the former grey..... *douraca*, p. 430.
b. Back, upper wing-coverts, scapulars, breast, and abdomen vinous red; head grey; females of a general pale brown colour.
c'. Under wing-coverts lead-grey ..... *humilis*, p. 434.
d'. Under wing-coverts light grey ..... *tranquebaricus*, p. 437.

11. Turtur semitorquatus.

? Columba risoria fera, var., *Licht. Verz. Doubl.* p. 62, n. 696 (1823) (Nubia).
? Columba levaillanti, *Temm.* (ubi ?), *Less. Tr. d'Orn.* p. 473 (1831) (Cape, descr. nulla).
Columba semitorquata, *Rüpp. Neue Wirbelth., Vög.* p. 66, t. 23. f. 2 (Abyssinia) (1835).
Turtur erythrophrys, *Sw. B. W. Afr.* ii. p. 207, pl. 22 (1837); *Blyth, J. A. S. B.* xxiv. p. 260 (1855) (Nubia, *Rüppell*); *Hartl. J. f. O.* 1854, p. 206, 1855, p. 361; *id. Orn. W.-Afr.* p. 195 (1857) (Gambia, Ashantee, Gaboon); *Cass. Pr. Philad. Acad.* 1859, p. 143 (Gaboon); *Gurn. Ibis*, 1862, p. 152 (Natal); *Monteiro, P. Z. S.* 1865, p. 94 (Angola); *Hartl. P. Z. S.* 1867, p. 827 (Zanzibar); *Chapm. Trav. S. Afr.* ii. App. p. 411 (1868); *Bocage, Jorn. Acad. Lisb.* i. p. 337 (1867), ii. p. 46 (1868), p. 349 (1869); *Cab. v. d. Deck. Reis.* iii. p. 42 (1869); *Sharpe, Ibis*, 1870, p. 57 (Fantee); *id. P. Z. S.* 1870, p. 150 (Angola); *Shell. & Buckl. Ibis*, 1872, p. 290 (Gold Coast); *Schleg. Mus. P.-B.* Columbæ, p. 121 (1873) (Gold Coast *); *Sharpe, P. Z. S.* 1874, p. 306 (Bulama Islands); *Gieb. Thes. Orn.* iii. p. 726 (syn. emend.) (1877); *Cab. J. f. O.* 1878, p. 242 (Mombas); ? *Hartert, J. f. O.* 1886, p. 604 (Niger).
Turtur vinaceus, part., *G. R. Gr. List Gallinæ B. M.* p. 12 (1844); *id. Gen. B.* ii. p. 472, n. 5 (1844); *Rchnb. Syn. Av.* ff. 1364, 1367 (*nec* f. 1368) (1847); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 43 (part. ?) (1856); *Layard* (*nec Gm.*), *B. S. Afr.* p. 259 (1867).
Turtur semitorquatus, *G. R. Gr. Gen. B.* ii. p. 472, n. 10 (1844); *Rüpp. Syst. Uebers.* p. 100 (1845); *Rchnb. Syn. Av.* f. 1371 (1847); *Strickl. Ann. & Mag. N. H.* xix. p. 182 (note) (1847); ? *Allen &*

* According to Schlegel the bird from the Gold Coast is smaller and specifically different from *T. levaillanti* (= *semitorquatus*, Rüpp.).

Thoms. Exp. Niger, ii. p. 41 (1848) (Rollas Is.); *Gordon, Contr. Orn.* 1849, p. 12 (Cape Coast Castle); ? *Heugl. J. f. O.* 1861, p. 197 (Tigreh); ? *Kirk, Ibis*, 1864, p. 330 (Zambesi); *Finsch, J. f. O.* 1869, p. 336; *Finsch & Hartl. Vög. Ostafr.* p. 541 (1870); *Finsch & Jesse, Tr. Zool. Soc.* vii. p. 327 (1870); *Blanf. Geol. & Zool. Abyss.* p. 416 (1870); *Sharpe, Ibis*, 1870, p. 486 (Volta River, Fantee); *Heugl. Orn. N.O.-Afr.* i. 2, p. 830 (1871), ii. p. clxix (1875); *Rchnw. J. f. O.* 1872, p. 213 (Accra); *Sharpe, P. Z. S.* 1873, p. 715 (Mombas); *Rchnw. J. f. O.* 1874, p. 388 (Cameroons); *Bocage, J. f. O.* 1876, p. 314; *Rchnw. J. f. O.* 1877, p. 13 (Loango Coast); *Hartl. Vög. Madag.* p. 271 (descr. nec hab.) (1877); *Fischer, J. f. O.* 1877, p. 208; *Boc. Jorn. Ac. Lisb.* vi. p. 207 (1878); *Fisch. & Rchnw. J. f. O.* 1878, pp. 250, 292 (Zanzibar); *Fischer, J. f. O.* 1879, pp. 300, 303 (E. Afr.); *Bocage, Orn. Ang.* p. 383 (1881); *Hartl. Abh. nat. Ver. Brem.* vii. p. 117 (1881) (Lado); *Shell. Ibis*, 1882, p. 359 (Umvuli River); *Böhm, J. f. O.* 1882, p. 198 (Centr. Afr.); *id. Orn. Centralbl.* 1882, pp. 51, 66; ? *Salv. Cat. B. Strickl. Coll.* p. 546 (1882) (Cape, S. Africa); *Holub & Pelz. Beitr. Orn. Südafr.* p. 175 (1882); *Shell. Ibis*, 1883, p. 303; ? *Forbes, Ibis*, 1883, pp. 513, 515 (Niger); *Sharpe, Layard's B. S. Afr.* p. 566 (1884); *Fischer, Zeitschr. ges. Orn.* 1884, p. 376 (Massailand); *Salvad. Ann. Mus. Civ. Gen.* (2) i. p. 208 (1884); *Fisch. J. f. O.* 1885, p. 118 (E. Afr.); *Rchnw. J. f. O.* 1887, p. 51; *Salvad. Ann. Mus. Civ. Gen.* (2) vi. p. 303 (1888); *Shell. P. Z. S.* 1888, p. 45 (Equat. Afr.); *id. Ibis*, 1888, p. 303 (Manda Is.); *id. P. Z. S.* 1889, p. 369 (Kilimanjaro); *Tristr. Cat. Coll. B.* p. 38 (1889) (Fantee); *Rchnw. J. f. O.* 1889, p. 269 (E. Africa), 1890, p. 109 (Cameroon); *Emin, J. f. O.* 1891, p. 58 (Ugogo); *Rchnw. t. c.* p. 143; *Hartert, Kat. Vogelsamml.* p. 188 (1891) (Abyssinia); *Rchnw. J. f. O.* 1892, p. 12 (Bukoba); *Rendall, Ibis*, 1892, p. 227 (Gambia); *Shell. Ibis*, 1893, p. 28 (Zomba); *Rchnw. Jahrb. Hamb. Wissensch. Anst.* x. p. 9 (1893).

Streptopelia erythrophrys, *Bp. Consp. Av.* ii. p. 63 (1854); *id. Compt. Rend.* xl. pp. 17, 219, n. 185 (1855); *id. Coup d'œil Ordre Pig.* pp. 31, 57, n. 185 (1855); *Rchnb. Tauben*, i. p. 73, ii. pp. 175, 197, n. 169, t. 247. f. 1368 (*ex Sw.*), t. 248. f. 1371 (*ex Rüpp.*) (1862); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 17 (1873); ? *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 277 (1890) (Port Natal).

Peristera semitorquata, *C. L. Brehm, Vogelf.* p. 258 (1855).

Columba levaillanti, *A. Smith, MS. in Mus. Brit.*; *Bp. Compt. Rend.* xl. p. 18 (1855); *id. Coup d'œil Ordre Pig.* p. 31 (1855).

Columba gumri, *Frank, MS., ondè*

Streptopelia gumri, *Rchnb. Tauben*, i. p. 73, t. 247. ff. 1364, 1367 (1862), ii. p. 197, n. 170 (1862).

Streptopelia semitorquata, *G. R. Gr. Hand-list*, ii. p. 238, n. 9325 (1870); *Gurn. in Anderss. B. Dam. Land*, p. 234 (1872); *Antin. & Salvad. Viagg. Bogos*, p. 131 (1873); *Boc. Jorn. Acad. Lisb.* v. p. 56 (1874), vi. p. 156 (1877), p. 278 (1878).

Turtur levaillanti, *Schleg. Mus. P.-B.* Columbæ, p. 121 (1873).

? Turtur capicola, *Sharpe & Bouv.* (*nec Sundev.*) *Bull. Soc. Zool. Fr.* i. p. 312 (Landana) (1876).

Adult male. Crown grey, lighter on the forehead, and tinted with rufous buff in front and on the sides; remainder of the head, neck, and chest deep vinous pink, paler on the chin and throat; no black feathers in front of the eyes: on the hind neck a broad black collar, partially edged above and below with grey; back, inner

half of the upper wing-coverts, inner secondaries, and two central tail-feathers brown with an olive gloss, and passing into deep bluish slate-colour on the outer wing-coverts; rump washed with slaty grey; bastard wing and primary-coverts brownish black; primaries blackish brown, with partial narrow light edges; outer secondaries dark grey; lateral tail-feathers brown-grey, bluish towards the tips and with a blackish band about the middle; under surface of the tail black at the base, light grey at the apical part; the vinous chest passes into leaden grey on the sides, abdomen, thighs, and under tail-coverts, the latter slightly paler at their edges; under wing-coverts deep slate-colour: eyelids red; "irides orange-red; bill black; feet red" (*Ragazzi*). Total length 12·4 inches, wing 7·4, tail 5·5, bill 0·7, tarsus 0·95.

Female. Similar to the male.

Hab. The whole African continent, from about 14° N. lat. southwards.

a. ♂ ad. sk.	Ain on Lebka R., Samhar, Abyssinia.	W. T. Blanford, Esq. [C.].
b. ♂ ad. sk.	Ankober, Abyssinia, Jan. (*Harris*).	India Museum [P.].
c. Ad. sk.	Mombas.	Sharpe Coll.
d. ♂ ad. sk.	Lake Bombo, Mombas, July (*Hildebrandt*).	Shelley Coll.
e. ♂ ad. sk.	Kilimanjaro, Aug.	H. C. V. Hunter, Esq. [P.].
f. ♂ ad. sk.	Manda Is.	F. J. Jackson, Esq. [P.].
g–m. ♂ ♀ ad. sk.	Zomba, Nyassaland, Aug. (*A. Whyte*).	H. H. Johnston, Esq. [P.].
n. Ad. sk.	Dar-es-Salaam (*Kirk*).	Shelley Coll.
o. Ad. sk.	Transvaal ?	Gurney Coll.
p. ♀ ad. sk.	Grahamstown (*E. L. Layard*).	Shelley Coll.
q, *r*. Ad. sk.	S. Africa.	Sir A. Smith [C.] (Types of *C. levaillanti*, Smith, MS.)
s. Ad. sk.	Accra (*Buckley*).	Shelley Coll.
t. Juv. sk.	Accra, May (*J. Smith*).	Shelley Coll.
u. Ad. sk.	Accra.	Sharpe Coll.
v. Ad. sk.	Elminia, April (*Blissett*).	Shelley Coll.
w. Ad. sk.	Ashanti.	Gould Coll.
x. ♂ ad. sk.	Coast of Guinea, Aug.	Tweeddale Coll.
y. Ad. st.	Gambia.	Rendall's Coll.
z. ♀ ad. sk.	Tingasi, July.	Emin Pasha [P.].
a'. Ad. sk.	? Gaboon (*Du Chaillu*).	Shelley Coll.
b'. Ad. sk.	Benguela.	J. Monteiro, Esq. [C.].
c', *d'*. Ad. sk.	Ancobra R.	Captains Burton & Cameron [P.].
e'. ♂ ad. sk.	Rio Dande, Loando, June (*Sala*).	Sharpe Coll.
f'. Pull. sk.	Bred in confinement, Aug.	E. W. H. Blagg, Esq. [P.].
g'. Skeleton.	Gaboon (*Verreaux*).	Eyton Coll.

12. Turtur shelleyi.

Turtur erythrophrys, *Antin.* (*nec Sw.*) *Cat. Descr. Uoc.* p. 88 (1864) (Gencké, 9° lat. N., specimen examined).
Turtur semitorquata, *Salvad. Atti R. Ac. Sc. Tor.* v. p. 745 (1870).
Turtur semitorquatus, var., *Shell. Ibis*, 1883, pp. 305, 306 (Niger, *Baikie*).

Adult. Similar to *T. semitorquatus*. Anterior part of the upper head grey, this colour surrounds the eyes and extends on the upper part of the cheeks; chin and throat greyish white; occiput, neck, and breast vinous pink; no black feathers in front of the eyes; on the hind neck a broad black collar, partially edged above with grey; back, middle of the rump, upper tail-coverts, and inner upper wing-coverts brown; sides of the rump and outermost wing-coverts lead-grey; bastard-wing and primary-coverts black; quills black, with partial narrow light edges; under wing-coverts and flanks lead-grey; lower abdomen, vent, and under tail-coverts lead-grey, the latter with distinct whitish edges; two central tail-feathers brown, the lateral ones blackish on the basal half, light brown with white tips on the apical half; tail below black at the base and greyish white at the apical half, with the tip whiter: bill black; feet red; iris brown. Total length about 12 inches, wing 6·6, tail 5, bill 0·7, tarsus 0·9.

Hab. Upper White Nile and Niger.

a. ♂ ad. sk.	Niger (*Baikie*).	Shelley Coll. (Type of species.)

13. Turtur ambiguus.

Turtur semitorquatus, *Kirk* (*nec Rüpp.*), *Ibis*, 1864, p. 330 (Zambesi).
Turtur erythrophrys, *Boc.* (*nec Sw.*) *Jorn. Acad. Sc. Lisb.* n. ii. 1867, p. 152 (Angola).
Turtur sp. ?, *Boc. Jorn. Acad. Sc. Lisb.* n. xii. 1872, p. 67 (R. Coroca); *id. J. f. O.* 1876, p. 314.
Turtur ambiguus, *Boc. Orn. Ang.* p. 386 (1877); *Rchnw. & Schal. J. f. O.* 1882, p. 117; *Rchnw. J. f. O.* 1892, p. 13 (Bukome, Victoria Nyanza).
Turtur decipiens, part., *Shell. Ibis*, 1883, p. 306; *Sharpe* (*nec F. & H.*), *Layard's B. S. Afr.* p. 567 (1884); *Tristr. Cat. Coll. B.* p. 38 (1889) (Sobat, Central Africa).

Somewhat similar to *T. semitorquatus*, from which it differs as follows:—Forehead, crown, and cheeks pearl-grey, fading into white on the chin and centre of the upper throat, and passing into vinous pink on the back of the head and posterior portions of the cheeks; neck and chest vinous pink, paler than in *T. semitorquatus*, the black collar partially edged above with grey; the upper parts are somewhat paler, the grey on the marginal upper wing-coverts paler grey; the outer secondaries and sides of the rump washed with grey; central tail-feathers brown like the back; remainder of the

tail slaty grey for more than the basal half, the apical portion being grey, fading into white towards the ends of the feathers, the outer one on each side having a very narrow white edge; the vinous of the breast shades into leaden grey on the flanks and thigh-coverts, and into white on the centre of the abdomen and vent; under tail-coverts pearl-grey, broadly edged with white; under wing-coverts leaden grey; under surface of the quills dark brown, with very narrow whitish edges to their inner webs: "bill black; feet red; iris brown" (*Anchieta*). Total length about 12 inches, wing 6·3, tail 4·9, bill 0·75, tarsus 0·95.

Hab. Zambesi, Benguela, and Sobat River, at about 9° N. lat.

It is quite possible that a good series of specimens will show that *T. ambiguus*, Boc., is not different from true *T. decipiens*, the former being only somewhat smaller and more grey on the sides of the head or cheeks; but I find that in two specimens from Sobat (*Emin Pasha*), one mentioned below and the other in the Tristram Collection, the amount of grey on the cheeks is rather variable, and although the difference in size seems constant, I do not think it is sufficient to indicate specific difference.

a. ♀ ad. sk.	Sobat, 9° N. lat., June (*Emin Pasha*).	Shelley Coll.
b, *c*. Ad. sk.	Tette.	Livingstone Exped.

14. Turtur decipiens.

Columba risoria, part., *Wagl. Syst. Av.* Columba, sp. 93 (excl. var.) (1827).
Columba collaris, *Hempr. Mus. Berol., fide Bp. Compt. Rend.* xliii. p. 942 (1856).
Turtur risorius, *Hartl.* (*nec auct.*) *Syst. Verz.* p. 99 (1844) (*fide Finsch in litt.*); *Brehm* (*nec Linn.*), *Reis. Habesch*, p. 379 (1863).
Turtur senegalensis, *Heugl.* (*nec Linn.*) *Syst. Uebers.* p. 50 (1856).
Turtur vinaceus (part.), *Hartl. Orn. W.-Afr.* p. 195 (1857).
Streptopelia erythrophrys, part., *Rchnb. Tauben*, i. p. 73 (1862).
Turtur decipiens, *Finsch & Hartl. Vög. Ostafr.* p. 544 (1870); *Heugl. Orn. N.O.-Afr.* i. 2, p. 833 (1871), ii. 2, p. clxix (1875); *Shell. Ibis*, 1883, p. 306 (part.); ? *Leverk. J. f. O.* 1889, p. 130 (albino!); *Rchnw. J. f. O.* 1892, p. 13 (Dongola).
Streptopelia risoria, part., *G. R. Gr. Hand-list*, ii. p. 238, n. 9328 (1870).
Turtur semitorquatus, *Württ.* (*nec Rüpp.*) *Coll. Mergenth., fide Heugl. Orn. N.O.-Afr.* ii. 2, p. clxix (1875).
? Turtur neglectus, part., *Schleg. Mus. P.-B.* Columbæ, p. 122 (1873) (N.E. Africa); *Gieb. Thes. Orn.* iii. p. 727 (1877).
Turtur collaris, *H. & E. in Mus. Dress., fide Shelley, Ibis*, 1883, p. 307.

Adult. Upper parts pale earthy brown, more or less rufescent; anterior part of the head above ashy, changing into vinous on the hind part and on the nape; sides of the head, neck, and breast vinous; a slight greyish tinge on the anterior part of the cheeks: chin and middle of the throat whitish; no black feathers in front

of the eyes; on the hind neck a broad black collar, partially edged above with grey; back, middle of the rump, and upper tail-coverts earthy brown; sides of the rump and outer, or marginal, upper wing-coverts lead-grey; bastard-wing and primary-coverts brown-black, with partial narrow light edges; under wing-coverts and flanks lead-grey; middle of the abdomen whitish; under tail-coverts pale grey, with the tips whitish; two central tail-feathers earthy brown like the back, the lateral ones grey on the basal half, light brown with white tips on the apical half; tail below black at the base, greyish whitish at the apical half, with the tip whiter. Total length about 12 inches, wing 7, tail 5·2, bill 0·75, tarsus 0·1.

Hab. Dongola.

a. ♂ ad. sk. Argo I., Dongola, April (*Hemprich & Ehrenberg*). Dresser Coll.

(One of the types of *Columba collaris*, Hempr.) *

15. Turtur bitorquatus.

Columba bitorquata, *Temm. & Knip, Pig.* i. fam. seconde, p. 86, pl. 40 (1808–11) (India, *Maugé*); *Temm. Pig. et Gallin.* i. pp. 301, 477 (1813) (S. Asia); *Vieill. N. D.* xxvi. p. 349 (1818); *Steph. Gen. Zool.* xi. p. 76 (1819); *Horsf. Trans. Linn. Soc.* xiii. p. 188 (1821) (Java); *Vieill. Enc. Méth.* i. p. 382 (1823); *Desm. Dict. Sc. Nat.* xl. p. 344 (1826); *Wagl. Syst. Av.* Columbæ, sp. 94 (1827); *Less. Tr. d'Orn.* p. 473 (part.) (1831) (Sumatra!); *id. Compl. de Buff., Ois.* viii. p. 53 (1837); *id. op. cit.* 2nd ed. p. 283 (1838).

Peristera bitorquata, *Boie, Isis*, 1828, p. 327.

Turtur bitorquatus, *G. R. Gr. List Gallinæ Brit. Mus.* p. 12 (1844); *id. Gen. B.* ii. p. 472, n. 6 (1844); *Rchnb. Syn. Av.* ff. 1373–74 (1847); *Blyth, Cat. B. Mus. A. S. B.* p. 236, n. 1431 (1849) (Timor); *id. J. A. S. B.* xxiv. p. 261 (1855); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 44 (part.?) (1856); *id. P. Z. S.* 1860, p. 361 (Molucca!); *Wall. P. Z. S.* 1863, p. 486 (Lombock, Flores, Timor); *Schleg. De Dierent.* p. 206 (1864); *Wall. Ibis*, 1865, pp. 391, 399; *id. J. f. O.* 1866, p. 283; *Schleg. Mus. P.-B.*

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* I am not acquainted with the following species:—

TURTUR PERSPICILLATUS.

Turtur albiventris, *Böhm* (*nec Gr.*), *J. f. O.* 1882, p. 198.

Turtur capicola, part., *Schal. J. f. O.* 1883, p. 342 (Konko).

Turtur perspicillata, *Fisch. & Rchnw. J. f. O.* 1884, p. 179 (Massailand); *Fischer, Zeitschr. ges. Orn.* 1884, p. 377; *id. J. f. O.* 1885, p. 119; *Rchnw. J. f. O.* 1887, pp. 41, 51, 1892, p. 14.

Very much like *T. decipiens*, F. & H., but it differs in having the under tail-coverts, vent, and flanks pure white, and a very broad coral-red naked ring round the eyes: iris brownish yellow; bill black; feet vinous reddish. Total length 10·41–11 inches, wing 6·09–6·48, tail 4·52–4·91, culmen 0·70, tarsus 0·90. (*Translation.*)

Hab. Massailand, interior of E. Africa.

Obs. Dr. Reichenow notices that a specimen from Ugogo (*Böhm*) has the middle of the under tail-feathers washed with grey.

Columbæ, p. 121 (1873) (Sumbawa); *Gieb. Thes. Orn.* iii. p. 725 (1877); *Nichols. Ibis*, 1882, p. 66 (Java); *Salv. Cat. B. Strickl. Coll.* p. 546 (1882); *Sclat. List Vert. An.* 8th ed. p. 454 (1883); *Vorderm. N. T. N. I.* xliv. p. 227 (1884), xlv. p. 403 (1885); *Tristr. Cat. Coll. B.* p. 38 (1889) (Malacca!, Java); *Hartert, Kat. Vogelsamml.* p. 188 (1891).

Streptopelia bitorquata, *Bp. Consp. Av.* ii. p. 65 (1854); *id. Compt. Rend.* xl. pp. 18, 219, n. 190 (1855); *id. Coup d'œil Ordre Pig.* pp. 31, 57, n. 190 (1855); *Rchnb. Tauben*, i. p. 75, t. 248. ff. 1373–74 (1862); *Pelz. Novara Reis., Vög.* p. 109 (1865); *G. R. Gr. Hand-list*, ii. p. 239, n. 9330 (1870) (Borneo!); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 17 (1873); *Salvad. Cat. Ucc. Borneo*, p. 297 (1874); *id. Orn. Pap. e Mol.* iii. p. 153 (1882); *Guillem. P. Z. S.* 1885, p. 510 (Sumbawa); *Vorderm. N. T. N. I.* xlvi. p. 236 (1886), xlix. p. 413 (1889); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 277 (1891).

Adult male. Pileum grey, lighter in front; chin whitish; sides of the head, neck, and breast rich vinous, fading into white on the lower abdomen, vent, and under tail-coverts; on the hind neck a broad black collar, edged above with white; back, rump, upper tail-coverts, scapulars, inner wing-coverts, tertials, and central tail-feathers earthy brown; outer wing-coverts, under wing-coverts, and flanks lead-grey; winglet, primary-coverts, and quills brown-black; lateral tail-feathers bluish grey, darker towards the base, the outer feathers have the whole of the outer web bluish grey; tail below white-grey on the apical half, black on the basal: "bill black, base at gape red; orbits red; iris yellow (orange-yellow, *Guillemard*); feet pinky red (coral-red, *Guillemard*)" (*Wallace*). Total length 13 inches, wing 6·3, tail 5·2, bill 0·6, tarsus 1·1.

Female. Like the male.

Hab. Java, Lombock, Sumbawa, Flores, Solor, and Timor.

Both the localities Sumatra and Malacca (*Tristram*) require confirmation; the first is mentioned by Lesson and by Wallace (Ibis, 1865, p. 399), who most likely did so by mistake, instead of Flores, which was omitted by him.

Flores birds have the under tail-coverts with a slight grey wash, instead of being pure white, and the vinous colour of the lower parts covers a greater part of the abdomen.

a. Ad. st.	Indian Archipelago.	Baron Laugier's Coll.
b. Juv. sk.	Java (*Horsfield*).	India Museum [P.].
c, d. ♂ ♀ ad. sk.	Java [*Leyden Museum*].	Salvin-Godman Coll.
e, f, g. Ad. sk.	Java.	Tweeddale Coll.
h. Ad. sk.	W. Java (*Wallace*).	Gould Coll.
i, k, l. Ad. sk.	Flores.	Wallace Coll.
m. Ad. sk.	Flores (*Wallace*).	Seebohm Coll.
n. Ad. sk.	Flores (*Wallace*).	Salvin-Godman Coll.
o, p, q. ♂ ♀ ad. sk.	Lombock.	Wallace Coll.
r. ♂ ad. sk.	Lombock (*Wallace*).	Salvin-Godman Coll.
s. Ad. sk.	Solor.	Wallace Coll.
t. ♂ ad. sk.	E. Timor.	Wallace Coll.
u. ♀ ad. sk.	E. Timor (*Wallace*).	Gould Coll.
v, w. Skeletons.		Purchased.

16. Turtur dussumieri.

Columba dussumieri, *Temm. Pl. Col.* 188 (livr. 32, 1823) (Manilla); *Steph. Gen. Zool.* xiv. p. 285 (1826); *Desm. Dict. Sc. Nat.* xl. p. 348 (1826); *Wagl. Syst. Av.* Columba, sp. 99 (1827) (Luzon et ins. Marianis); *Less. Tr. d'Orn.* p. 473 (1831); *id. Compl. de Buff., Ois.* viii. p. 54 (1837); *id. op. cit.* 2nd ed. p. 288 (1838); *Prév. & Knip, Pig.* ii. pl. 20 (1838–43).

Colombe dussumier, *Quoy & Gaim. Voy. Uran., Zool.* i. p. 35 (1824) (Iles Mariannes).

Peristera dussumieri, *Boie, Isis*, 1828, p. 327.

Turtur dussumieri, *G. R. Gr. Gen. B.* ii. p. 472, n. 12 (1844); *Rchnb. Syn. Av.* f. 1360 (1847); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 45 (1856); *Rchnb. Tauben*, i. p. 71, t. 246. f. 1360 (1862); *Wall. Ibis*, 1865, p. 392; *id. J. f. O.* 1866, p. 283; *G. R. Gr. Hand-list*, ii. p. 239, n. 9331 (1870); *Schleg. Mus. P.-B.* Columbæ, p. 120 (1873); *Wald. Trans. Zool. Soc.* ix. pp. 218, 251 (1875); *Sharpe, Trans. Linn. Soc.* (2) *Zool.* i. pp. 347 (Panay), 353 (1876); *Gieb. Thes. Orn.* iii. p. 726 (1877); *Tweedd. P. Z. S.* 1877, pp. 700, 765, 833 (Mindanao), 1878, p. 288 (Negros), p. 344 (Leyte), p. 711 (Bohol), p. 952 (S.W. Mindanao); *Tweedd. Orn. Works*, pp. 382, 383, 412, 525, 538, 559, 594, 600, 623, 628, 643 (1881); *Wardl. Rams. Tweedd. Orn. Works*, p. 659 (1881); *Sharpe, P. Z. S.* 1881, p. 799 (Sandakan, Borneo); *Guillem. P. Z. S.* 1885, p. 272 (Sulu, Siassi); *Blas. Ibis*, 1888, p. 374 (Palawan); *id. Ornis*, 1888, p. 317 (Palawan); *Everett, Journ. Str. Br. R. As. Soc.* 1889, p. 193; *Tristr. Cat. Coll. B.* p. 38 (1889); *Whiteh. Ibis*, 1890, p. 56; *Steere, List*, p. 24 (Mindanao, Guimaras, Negros, Panay, Cebu, Siquijor, Bojol, Masbate, Marinduque, Mindoro, Luzon) (1890); *Hartert, Kat. Vogelsamml.* p. 188 (1891); *id. J. f. O.* 1891, p. 300; *Wiglesw. Aves Polyn.* p. 54 (1891).

Streptopelia dussumieri, *Bp. Consp. Av.* ii. p. 65 (1854) (Malesia, Java! Sumatra! Borneo!); *id. Compt. Rend.* xl. pp. 18, 219, n. 191 (1855); *id. Coup d'œil Ordr. Pig.* pp. 31, 57, n. 191 (1855); *G. R. Gr. Hand-list*, ii. p. 269, n. 9331 (1870); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 17 (1873).

Streptopelia gaimardi, *Bp. Consp. Av.* ii. p. 66 (1854) (ex Ins. Mariannis, *Quoy & Gaimard*, 1821) (type examined); *id. Compt. Rend.* xl. pp. 18, 219, n. 192 (1855); *id. Coup d'œil Ordre Pig.* pp. 31, 57, n. 192 (1855); *Rchnb. Tauben*, i. p. 76 (1862); *G. R. Gr. Hand-list*, ii. p. 239, n. 9333 (1870).

Turtur (Streptopelia) gaimardi, *G. R. Gr. List B. Trop. Isl.* p. 43 (1859).

Turtur (Streptopelia) dussumieri, *v. Mart. J. f. O.* 1866, p. 24.

Turtur gaimardi, *Wald. Trans. Zool. Soc.* ix. p. 219 (1875); *Tweedd. Orn. Works*, p. 219 (1881).

Adult male. Head pale greyish, with a slight vinous tinge on the hind part and also on the nape; forehead paler; chin and throat white, changing into vinous on the lower part and breast; the vinous of the breast changing into white on the middle of the abdomen, vent, and under tail-coverts; on the nape a black collar with a mealy appearance, the edges of the feathers darker; lower hind neck with a rusty tinge; back, middle of the rump, upper tail-coverts, scapulars, inner secondaries, and inner upper wing-coverts

pale earthy brown; sides of the rump, anterior wing-coverts, and under wing-coverts lead-grey; quills blackish, with a greyish tinge, especially on the outer secondaries; central tail-feathers pale earthy brown like the back, the next two pairs also pale earthy brown, but more or less grey along the middle, the fourth and fifth pairs dark grey, with a brown tinge towards the tip of the outer web; the outer tail-feathers almost black, with the terminal portion grey, edged with whitish, and with the outer web white tinged with grey: "iris ochreous orange; bill greyish black; feet dull crimson" (*Everett*). Total length about 12 inches, wing 6·2, tail 5·2, bill 0·65, tarsus 0·93.

Female. Similar to the male, but somewhat smaller.

Hab. N.E. Borneo, Philippines, Sulu Islands, and Marianne or Ladrones Islands (where most likely it has been introduced).

a. Ad. st.	Philippine Islands.	Cuming Coll.
b, c. ♂ ♀ ad. sk.	Luzon, Jan. (*A. B. Meyer*).	Tweeddale Coll.
d, e, f. ♂ ♀ ad. et ♂ juv. sk.	Monte Alban, Feb., March (*A. H. Everett*).	Tweeddale Coll.
g. ♂ juv. sk.	Monte Alban, Feb. (*A. H. Everett*).	Salvin-Godman Coll.
h. ♂ ad. sk.	Negros, March (*A. B. Meyer*).	Tweeddale Coll.
i. ♀ ad. sk.	Valencia, Aug. (*A. H. Everett*).	Tweeddale Coll.
k. ♂ ad. sk.	Dumaguete, Aug. (*A. H. Everett*).	Tweeddale Coll.
l, m. ♂ ♀ ad. sk.	Cebu, April (*A. H. Everett*).	Tweeddale Coll.
n. Ad. sk.	Cebu, April (*A. H. Everett*).	Salvin-Godman Coll.
o. ♀ ad. sk.	N. Bohol, Nov. (*A. H. Everett*).	Tweeddale Coll.
p. ♀ ad. sk.	S. Leyte, July (*A. H. Everett*).	Tweeddale Coll.
q. ♂ ad. sk.	Amparo, S. Leyte, July (*A. H. Everett*).	Tweeddale Coll.
r. ♂ ad. sk.	Surigao, Mindanao, May (*A. H. Everett*).	Tweeddale Coll.
s. ♀ ad. sk.	Butuan, Mindanao, May (*A. H. Everett*).	Tweeddale Coll.

17. Turtur capicola.

Tourterelle à collier du Cap, *Levaill. Ois. d'Afr.* vi. p. 79 (1808).
Columba risoria, var., *Licht. Verz. Doubl.* p. 67 (1823) (Terr. Caffr.).
Columba humilis ♀, *Temm. Pl. Col.* 258 (livr. 24, 1824).
Columba risoria, var. *a*, *Wagl. Syst. Av.* Columba, sp. 93 (1827) (ex Afr. merid.).
Turtur risorius, part., *Selby, Nat. Libr., Pigeons*, p. 171 (1835) (S. Africa); *G. R. Gr. List Gallinæ B. M.* p. 12, specim. *c* (1844) (S. Afr.).
Turtur vinaceus, *Strickl. Ann. & Mag. N. H.* xiii. p. 39 (1844) (?), xix. p. 182 (1847) (S. Africa); *Blyth* (*nec Gm.*), *Cat. B. Mus. A. S. B.* p. 235, n. 1429 (1849) (S. Africa); ? *id. J. A. S. B.* xxiv. p. 261 (1855) (S. Africa); ? *Salv. Cat. B. Strickl. Coll.* p. 546 (1882).

Streptopelia semitorquata, part., *Bp. Consp. Av.* ii. p. 64 (1854) (Cape of Good Hope).
Columba vinacea, var. capicola, *Sundev. Krit. om Levaill.* p. 54 (1857).
Columba vinacea, *Grill* (*nec Gm.*), *Zool. Anteckn.* p. 51 (1859).
Turtur semitorquatus, *Gurn. Ibis*, 1860, p. 214 (Natal); ? *Sclat. Ibis*, 1864, pp. 297, 300 (Joanna, or Anjuan); ? *Sclat. P. Z. S.* 1864, p. 113 (Kaseh and Gondokoro), p. 487 (Madagascar), 1866, p. 28 (Windvogelberg, S. Africa); *Layard, B. S. Afr.* p. 260 (1867); *Schleg. & Poll. Rech. Faun. Madag.* p. 113 (1868) (Mayotte); *E. L. Layard, Ibis*, 1869, p. 374 (S. Africa); *Gurn. Ibis*, 1873, p. 259 (Natal); *Schleg. Mus. P.-B.* Columbæ, p. 124 (part.) (1873) (Cape); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 17 (1873); *Barratt, Ibis*, 1876, p. 208 (Transvaal and Free State); *Hartl. Vög. Madag.* p. 271 (part.) (1877); ? *Sclat. List Vert. An.* 8th ed. p. 453 (1883) (Zanzibar).
Turtur albiventris, *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 44 (part.) (1856) (S. Afr.); *Pelz. Novara Reise, Vög.* p. 108 (1865); (Cape); *Shell. Ibis*, 1875, pp. 60, 83 (Cape); *Holub & Pelz. Beitr. Orn. Südafr.* p. 172 (1882).
Columba bicincta, *A. Smith, MSS., fide G. R. Gr. List B. Brit. Mus.* Columbæ, p. 44 (1856).
Turtur bitorquatus, part., *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 44, specim. *b*, *c* (1856).
Turtur delalandii (*errore*?), *Sclat. P. Z. S.* 1862, p. 12 (E. Africa, *Speke*).
? Streptopelia semitorquata, *Rchnb. Tauben*, ii. p. 197, t. 247. f. 1369 (1862); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 277 (1890) (Port Natal and Cape).
Turtur capicola, *Finsch & Hartl. Vög. Ostafr.* p. 548 (1870); *Heugl. Orn. N.O.-Afr.* i. 2, pp. 835, 838 (1871); *Gurn. Ibis*, 1873, p. 259; ? *Shell. P. Z. S.* 1879, p. 678 (Great Comoro); *Sharpe in Oates' Matabele-Land*, p. 322 (1881); *id. Ibis*, 1882, p. 359 (S.E. Africa); *Schal. J. f. O.* 1883, p. 342 (part.)*; *Butl., Feild., & Reid, Zoolog.* 1883, p. 338 (Natal); *Shelley, Ibis*, 1883, p. 313 (part.); *Sharpe, Layard's B. S. Afr.* p. 567 (1884); *Fischer, J. f. O.* 1885, p. 118 (E. Afr.)†; *Böhm, J. f. O.* 1885, p. 53; *Rchnw. J. f. O.* 1887, p. 51; *Schal. t. c.* p. 228; *Tristr. Cat. Coll. B.* p. 38 (1889).
Streptopelia albiventris, part., *G. R. Gr. Hand-list*, ii. p. 239, n. 9326 (1870).
Streptopelia capicola, *G. R. Gr. Hand-list*, ii. p. 239, n. 9334 (1870); *Ayres, Ibis*, 1880, p. 109 (Transvaal).
? Turtur damarensis, *Cab.* (*nec Finsch & Hartl.*) *J. f. O.* 1878, p. 242 (Zanzibar).
? Turtur capicola, var. C, *Tristr. Cat. Coll. B.* p. 38 (1889) (Pangani River, *Kirk*).
Turtur capicolus, *Hartert, Kat. Vogelsamml.* p. 188 (1891).

Adult male. Pileum leaden grey, lighter on the forehead, and shading into vinous grey on the sides of the head, neck, and chest; anterior part of the cheeks and throat grey; a black line on the lores, not always well defined; on the hind neck a broad black collar, partially edged above and below with grey; back, inner upper wing-coverts, innermost secondaries, and scapulars grey-brown, passing

* Quid *Turtur rupicola*, Schal. J. f. O. 1883, p. 342 (Zanzibar! *Böhm*)?
† Quid *T. albiventris*, Fisch. J. f. O. 1885, p. 119 (E. Africa)?

into leaden grey on outer upper wing-coverts; lower back and rump grey-brown along the middle, leaden grey on the sides; upper tail-coverts grey-brown; middle of the abdomen buffy white; under tail-coverts white; primary-coverts and quills blackish, with pale narrow edges; under wing-coverts leaden grey; central tail-feathers brown-grey, the lateral ones black on the basal half; the terminal half is white on the outer feathers, grey on the inner ones; tail underneath black on the basal half, white on the terminal one, the outer feathers have the outer web white: "iris brown; bill black; legs pinkish red." Total length 10·5 inches, wing 6, tail 4·6, bill 0·55, tarsus 0·85.

Female. Similar to the male.

Young. Duller and with pale edges to the feathers of the upper parts.

Hab. Cape Colony, extending into Natal and Southern Transvaal.

I suspect that there is some mistake as regards the locality "Bogos" assigned to three of the specimens mentioned below, as nobody else has found *T. capicola* in N.E. Africa, and, besides, between that part of the country and S. Africa lays the region inhabited by *T. damarensis*.

a, b. Imm. st. et pull. sk.	S. Africa. (Types of *Columba bicincta*, Smith, in Brit. Mus.)	Sir A. Smith's Coll.
c. Juv. sk.	S. Africa.	Hardwicke Bequest.
d. Ad. sk.	S. Africa.	Capt. Fitzroy [P.].
e, f. Ad. sk.	S. Africa.	J. Roche, Esq. [P.].
g, h. Ad. sk.	Cape (*E. A. Butler*).	Shelley Coll.
i, k. Ad. sk.	Cape Town, Jan., Feb. (*G. E. S.*).	Shelley Coll.
l. ♂ pull. sk.	Knysna.	Purchased.
m. ♂ ad. sk.	Mossell Bay, April (*F. Oates*).	W. and C. G. Oates, Esqrs. [P.].
n. ♂ ad. sk.	Maritzburg (*F. Oates*).	W. and C. G. Oates, Esqrs. [P.].
o, p. ♀ ad. sk.	Natal.	J. H. Gurney, Esq. [P.].
q. ♀ ad. sk.	Weeneen, April.	Salvin-Godman Coll.
r. ♀ ad. sk.	Between Pretoria and Mungwato (*F. Oates*).	W. and C. G. Oates, Esqrs. [P.].
s, t, u. Ad. et juv. sk.	[Bogos (*Esler*).]	Shelley Coll.
v. Ad. st.	[Indian Archipelago.]	Baron Laugier Coll.

18. Turtur damarensis.

? Tourterelle blonde à collier, *Levaill. Ois. d'Afr.* vi. p. 78, pl. 268 (1808); *Sundev. Krit. om Levaill.* p. 54 (1857) (ex Terra Damar.); *E. L. Layard, Ibis*, 1869, p. 374.

Columba risoria, part., *Temm. Pig. et Gallin.* i. pp. 323, 481 (1813); *Wagl. Syst. Av.* Columba, sp. 93, nota (1827).

Turtur vinaceus, *Strickl. & Scl.* (*nec Gm.*) *Contr. Orn.* 1852, p. 157 (Damara).

Turtur albiventris, *Hartl.* (*nec Gr.*) *P. Z. S.* 1867, p. 827 (Zanzibar); *Sharpe, P. Z. S.* 1875, p. 715 (Mombas); ? *Fischer, Zeitschr. ges. Orn.* 1884, p. 377 (Mkaramo, Massailand); *Emin, J. f. O.* 1891, p. 58 (Ugogo).

? Columba riscrius (!), *Chapm. Trav. in S. Afr.*, App. p. 410 (1868).
Turtur damarensis, *Finsch & Hartl. Vög. Ostafr.* p. 550 (1870); *Finsch, Tr. Zool. Soc.* vii. p. 289 (note) (1870); *Heugl. Orn. N.O.-Afr.* i. 2, p. 838, note (1871); *Cab. J. f. O.* 1878, p. 242 (E. Afr.); *Bocage, Orn. Ang.* p. 385 (1881).
Streptopelia damarensis, *G. R. Gr. Hand-list*, ii. p. 239, n. 9335 (1870); *Gurn. in Anders. B. Damara Land*, p. 233 (1872); *Gurn. Ibis*, 1873, p. 282.
Turtur semitorquatus, part., *Schleg. Mus. P.-B.* Columbæ, p. 124 (1873) (Damara and Mossamedes); ? *E. Newt. P. Z. S.* 1877, p. 300 (Anjuan, perhaps introduced).
Streptopelia capicola, *Ayres* (*nec Sundev.*), *Ibis*, 1873, p. 282 (Transvaal).
Turtur capicola, *Fisch.* (*nec Sundev.*) *J. f. O.* 1877, p. 208; *Fisch. & Rchnw. J. f. O.* 1878, p. 250; *Fisch. J. f. O.* 1878, p. 292 (Mombas), 1879, p. 300; *Shell. P. Z. S.* 1881, p. 596 (Pangani, Ugogo, Dar-es-Salaam, E. Africa); *Böhm, Orn. Centralbl.* 1882, pp. 51, 119; *id. J. f. O.* 1882, p. 198 (Zanzibar); *Shell. Ibis*, 1883, p. 312 (part.); *Schal. J. f. O.* 1883, p. 342 (part.); *Fisch. Zeitsch. f. ges. Orn.* 1884, p. 377; *Böhm, J. f. O.* 1885, p. 53; *Fisch. J. f. O.* 1885, p. 118; *Rchnw. J. f. O.* 1887, p. 51; *Böhm, J. f. O.* 1887, pp. 228, 342 (part.); *Rchnw. J. f. O.* 1889, p. 269 (Zanzibar and Quilimane); *Sharpe, Ibis*, 1892, p. 546 (Kitosh, E. Africa); *Shell. Ibis*, 1893, p. 28 (Zomba).
Turtur semitorquatus, *Shell.* (*nec Rüpp.*) *P. Z. S.* 1881, p. 596 (Dar-es-Salaam).
Turtur capicola damarensis, *Rchnw. J. f. O.* 1892, p. 14; *id. Jahrb. Hamb. Wissensch. Anst.* x. p. 9 (1893).

Very similar to *T. capicola*, from which it differs only in being somewhat paler; the grey of the head is much lighter on the forehead; the anterior part of the cheeks is very pale vinous, almost white; the grey shade on the cheeks is seldom present; the vinous of the neck and breast is paler, with no grey shade or very little; the brown of the upper parts is generally paler; and the grey of the outer upper wing-coverts is also paler. Dimensions somewhat smaller than in *T. capicola*.

Hab. Angola, Damaraland, and E. Africa, from Transvaal to Mount Elgon, and also the Comoro Islands and Madagascar.

a. ♂ ad. sk.	Maconjo, Angola (*Anchieta*).	Shelley Coll.
b. ♂ ad. sk.	Cunéné River (*C. J. Andersson*).	Gurney Coll.
c. ♀ ad. sk.	Elephant Vley, Damaraland, Sept. (*C. J. A.*).	Gurney Coll.
d. Ad. sk.	Damaraland (*C. J. A.*).	Tweeddale Coll.
e, f. ♂ ♀ ad. sk.	Potchefstroom, Jan., Oct. (*T. Ayres*).	Gurney Coll.
g. ♂ ad. sk.	Marico.	F. A. Barratt, Esq. [P.].
h. ♀ ad. sk.	Zomba, Nyassaland, Sept. (*A. Whyte*).	H. H. Johnston, Esq. [P.].
i. Ad. sk.	Lower Shiré Valley (*Kirk*).	Earl Russell [P.].
k. Ad. sk.	Tette.	Livingstone Exp.
l. ♀ ad. sk.	Malemboe, June (*Hildebrandt*).	Shelley Coll.
m. Ad. sk.	Ndi, Teita, July.	Dr. Hildebrandt [C.].
n. Ad. sk.	Pangani R. (*Kirk*).	Shelley Coll.

o. Ad. sk.	Ugogo.	Shelley Coll.
p. Ad. sk.	Dar-es-Salaam.	Shelley Coll.
q. Ad. sk.	Mombas.	Sharpe Coll.
r. Ad. sk.	Grande Comoro (*Kirk*).	Shelley Coll.
s. Ad. sk.	Grande Comoro.	Purchased.

19. Turtur vinaceus.

Turtur torquatus senegalensis, *Briss. Orn.* i. p. 124, pl. 11. f. 1 (1760).
Tourterelle à collier du Sénégal, *D'Aubent. Pl. Enl.* 161; *Buff. Hist. Nat. Ois.* ii. p. 553 (1771).
Columba senegalensis, *Müll.* (*nec Linn.*) *Syst. Nat. Suppl.* p. 133, n. 35*f* (1776); *Cass. Pr. Philad. Acad.* 1864, p. 248.
Collared Senegal Turtle, *Lath. Syn.* ii. 2, p. 656, n. 54 (1783).
Columba vinacea, *Gm. S. N.* i. p. 782, n. 57 (1788) (*ex Brisson*); *Lath. Ind. Orn.* ii. p. 611, n. 63 (1790); *Bonn. Tabl. Enc., Orn.* p. 250 (1790); *Vieill. N. D.* xxvi. p. 379 (1818).
Columba risoria, part., *Temm. Pig. et Gallin.* i. pp. 323, 481 (1813); *Desm. Dict. Sc. Nat.* xl. p. 349 (1826); *Less. Tr. d'Orn.* p. 473 (part.) (1831).
Turtur semitorquatus, *Sw.* (*nec Rüpp.*) *B. W. Afr.* ii. p. 208 (1837); *Sharpe, Ibis*, 1870, p. 486 (Fantee); *Shell. & Buckl. Ibis*, 1872, p. 290 (Gold Coast).
Turtur vinaceus, *G. R. Gr. List Gallinæ B. M.* p. 12 (1844); ? *Strickl. Ann. & Mag. N. H.* xiii. p. 39 (1844) (S. Africa); *G. R. Gr. Gen. B.* ii. p. 472, n. 5 (1844) (excl. syn.); *Hartl. J. f. O.* 1854, p. 206 (part.); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 43 (part.) (1856); *Hartl. Orn. W.-Afr.* p. 196 (part.) (1857); *Schleg. Mus. P.-B.* Columbæ, p. 123, n. 1 (1873); ? *Salv. Cat. B. Strickl. Coll.* p. 546 (1882); ? *Sclat. List Vert. An.* 8th ed. p. 453 (1883); *Shell. Ibis*, 1883, p. 311; ? *Forbes, Ibis*, 1883, p. 517 (Niger); *Hartl. Zoolog. Jahrb.* ii. p. 331 (1887) (Djanda, E. Equat. Afr.).
Turtur albiventris, *G. R. Gr. List Gallinæ Brit. Mus.* p. 191 (1844) (Western Africa)*; *id. Gen. B.* ii. p. 472, n. 11 (1844) (=semitorquatus, *Sw. nec Rüpp.*); *id. List B. Brit. Mus.* Columbæ, p. 44, specim. *g* (Tschadda) (1856); *Heugl. Orn. N.O.-Afr.* i. 2, p. 834 (part.) (W. Afr.) (1871), ii. p. clix (1875); *Rchnw. J. f. O.* 1874, p. 388 (Accra), 1877, p. 13 (Loango Coast!); ? *Hartert, J. f. O.* 1885, p. 604 (Niger).
Streptopelia vinacea, *Bp. Consp. Av.* ii. p. 64 (1854) (part., excl. White Nile); *id. Compt. Rend.* xl. pp. 17, 219, n. 187 (1855); *id. Coup d'œil Ordr. Pig.* pp. 31, 57, n. 187 (1855); *Rchnb. Tauben*, i. p. 74 (1862), ii. pp. 75, 197, *Novit. Suppl.* t. iii. f. 24 (1862) (*ex Pl. Enl.* 161); *G. R. Gr. Hand-list*, ii. p. 239, n. 9327 (1870); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 17 (1873) (Senegal, Benguela!); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 227 (1890) (N.E. Africa).
Turtur (sp.), *Heugl. J. f. O.* 1863, p. 9 (Galabat and Sennaar).
Streptopelia barbaru, *Antin. Cat. Descr. Ucc.* p. 89 (1864) (Sennaar, Kordofan, White Nile) (type examined); *Heugl. J. f. O.* 1867, p. 207; *Salvad. Atti R. Ac. Sc. Tor.* v. p. 745 (1870); *Antin. & Salvad. Viagg. Bogos*, p. 131 (1873) (Keren, Anseba).

* The type of *T. albiventris* is not the bird labelled "Tchadda R." (*Baikie*), as stated by Capt. Shelley; it is no longer in the British Museum, and was stated to be from W. Africa.

Streptopelia barbara, *Ibis*, 1864, p. 401; *Blyth, Ibis*, 1867, p. 151.
Streptopelia albiventris, part., *G. R. Gr. Hand-list*, ii. p. 289, n. 9826 (1870).

Adult male. Head and neck pink vinous, paler on the forehead, and changing into white on the chin and throat and on the lower abdomen, vent, and under tail-coverts; on the crown and occiput a slight greyish tinge; a black line in front of the eyes; on the hind neck a broad black collar, edged above with whitish; back, scapulars, tertials, and inner half of the wing-coverts earthy brown; rump and upper tail-coverts greyish brown; outer upper wing-coverts pale grey, with lighter edges; bastard wing and primary-coverts black; primaries brown-black, secondaries brownish grey, all the quills with narrow light edges; under wing-coverts grey; two central tail-feathers earthy brown like the back, the next two pairs bluish grey, whitish towards the tips and black at the base of the inner webs; remainder of the tail-feathers black at the base, white at the apical part; the outer feathers have also the basal part of the outer web edged with white; tail below with the basal half black and the terminal half white, the outer feathers edged with white: "feet brown; bill black; iris bright chestnut" (*Antinori*). Total length scarcely 10 inches, wing 5·8, tail 5·3, bill 0·45, tarsus 0·75.

Female. Similar to the male.

Hab. Tropical N. Africa, from Senegal and Gold Coast on the west, to Ngur and Bogos on the east; apparently also Loango.

I have compared the type of *S. barbaru*, Antin., with the birds mentioned below, and I find that they are absolutely identical.

a. Ad. sk.	Gambia (*Moloney*).	Shelley Coll.
b. ♂ ad. sk.	Accra (*G. E. S.*).	Shelley Coll.
c. Ad. sk.	Ninquah, E. Gold Coast, Dec.	Shelley Coll.
d. Ad. sk.	Tchadda R.	Dr. Balfour Baikie [P.].
e. Pull. sk.	Niger.	Purchased.
f. Skeleton.		Purchased.

20. Turtur roseogriseus.

Columba risoria, *Rüpp.* (*nec Linn.*) *Neue Wirbelth. Vög.* p. 67 (1835) (Massowa).
Turtur risorius, *Rüpp. Syst. Uebers.* p. 130 (1845) (Arabia, Abyssinia, Egypt); ? *Heugl. Ibis*, 1859, p. 343.
Turtur semitorquatus, *Blyth* (*nec Rüpp. neque Sw.*), *J. A. S. B.* xxiv. p. 261 (1855) (Abyssinia, *Rüppell*).
Peristera vinacea, *C. L. Brehm* (*nec Gm.*), *Vogelf.* p. 258 (1855).
Columba roseogrisea, *Sundev. Krit. om Levaill.* p. 54 (1857) (=C. risoria, *Rüpp.*).
Turtur albiventris, *Finsch & Hartl.* (*nec Gr.*) *Vög. Ostafr.* p. 546 (part.) (1870); *Finsch & Jesse, Tr. Zool. Soc.* vii. p. 289 (1870) (Abyssinia); *Blanf. Geol. & Zool. Abyss.* p. 417 (1870); *Heugl. Orn. N.O.-Afr.* i. 2, p. 834 (1871); *Shell. B. of Egypt*, p. 217 (1872); ? *Hartert, Kat. VogelsammL* p. 188 (1891) (Abyssinia, *Rüppell*).
? Turtur risoroides, *MS. Mus. Lugd. fide Heugl. J. f. O.* 1867, p. 206.

Turtur fallax, *Schleg. Mus. P.-B.* Columbæ, p. 124 (N.E. Africa) (1873) (=roseogriseus, *Sund. fide Büttikofer, in litt.*); *Gieb. Thes. Orn.* iii. p. 726 (1877).
Turtur ridibundus, *Württ. Coll. Mergenth., fide Heugl. Orn. N.O.-Afr.* ii. 2, p. clxix (1875).
Turtur roseogriseus, *Shell. Ibis*, 1883, p. 309 (N.E. Africa).

Similar to *T. vinaceus*, but larger, paler, with no black streak on the lores, and with the *under wing-coverts very light grey, almost white*; also the tail is differently coloured; central tail-feathers pale earthy brown; the outer tail-feather has the outer web and the apical portion white, the basal part of the inner web dark grey, almost black, and the mesial part of the same inner web grey; the remaining tail-feathers are dark grey, with the outer webs tinged with brown, and with the white tip diminishing in extent to the inner ones. Total length about 12·5 inches, wing 6 to 6·2, tail 4·1, bill 0·68, tarsus 0·9.

Female. Somewhat smaller than the male.

Hab. N.E. Africa and Djedda.

According to Capt. Shelley, our tame Turtle-Dove belongs to this species.

a. ♂ ad. sk.	Ailat, W. of Massowa, June.			W. T. Blanford, Esq. [P.].
b. ♀ ad. sk.	Koomayli, (*Jesse*).	Abyssinia,	June	Tweeddale Coll.
c. ♂ ad. sk.	Koomayli, (*Jesse*).	Abyssinia,	June	Salvin-Godman Coll.
d. ♀ ad. sk.	Koomayli, (*Jesse*).	Abyssinia,	June	Shelley Coll.
e. Ad. sk.	Djedda, Red Sea (*S. S. Allen*).			Dresser Coll.

21. Turtur douraca.

Columba risoria, *Pall.* (*nec Linn.*) *Zoogr. Rosso-As.* i. p. 565 (1811) (Ghilán); *Sykes, P. Z. S.* 1832, p. 150 (Dukhun); *Naumann, Wiegm. Archiv*, iii. 1, p. 106 (1837) (Balkan, Turkey); *Nordm. Bull. Ac. Sc. St. Pétersb.* 1837, n. 46 (Odessa and Islands on Lower Danube) (*cf. Rev. Zool.* 1838, p. 293); *Keys. & Blas. Wirbelth. Eur.* pp. lxii, 198, n. 268 (1840); *Finsch, J. f. O.* 1859, p. 385 (Bulgaria); *Schrenck, Reis. Amur-L.* i. p. 392 (1860); *Homey. J.f. O.* 1870, p. 169; *Sperling, Ibis*, 1864, p. 283 (S. Syria); *Alleon, Rev. et Mag. de Zool.* 1867, p. 5 (Constantinople); *Müll. J. f. O.* 1879, p. 390 (Cyprus); *Lilf. Ibis*, 1889, p. 333 (Cyprus).
Turtur douraca, *Hodgs. in Gray's Zool. Misc.* p. 85 (1844); *Schleg. Mus. P.-B.* Columbæ, p. 123 (1873); *Gieb. Thes. Orn.* iii. p. 726 (1877); ? *Picaglia, Atti Soc. Nat. Mod.* (3) ii. p. 44 (1884) (Modena, Italy); *Stejn. Pr. U.S. Nat. Mus.* 1887, p. 427, pl. xxii. f. 3 (outer tail-feather).
Turtur risorius, *Strickl. Ann. & Mag. N. H.* xiii. p. 38 (1844), xiv. p. 117 (1844); *Blyth, J. A. S. B.* xiv. p. 870 (1845); *id. Ann. & Mag. N. H.* xix. p. 181 (1847); *Hartl. Erst. Nachtr. Verz.* p. 17, n. 178 (1846); *Blyth, Cat. B. Mus. A. S. B.* p. 235, n. 1430 (part.) (1849); *Kelaart, Prodr. Cat.* p. 130 (1852); *Layard, Ann. & Mag. N. H.* (2) xiv. p. 59 (1854); *Blyth, J. A. S. B.* xxiv. p. 261

(1855)*; ? *Tristr. Ibis*, 1860, p. 69†; *Irby, Ibis*, 1861, p. 234 (Oudh and Kumaon); *Swinh. Ibis*, 1863, p. 338; *Beav. P. Z. S.* 1864, p. 376 (Maunbhoom); *Tristr. P. Z. S.* 1864, p. 448 (Palestine); *Jerd. B. of Ind.* iii. p. 481 (1864); *Tayl. Ibis*, 1864, p. 410 (Smyrna and Constantinople); *Buly. P. Z. S.* 1866, p. 571; *Tayl. Ibis*, 1867, p. 67 (Smyrna, never in Egypt); *Blyth, Ibis*, 1867, p. 151; *Pelz. J. f. O.* 1868, p. 36 (Kotegurh); *id. Ibis*, 1868, p. 320; *Tytler, Ibis*, 1868, p. 203; *Tristr. Ibis*, 1868, pp. 210, 211, 333 (Palestine); *Beav. Ibis*, 1868, p. 376 (India); *Elwes & Buckl. Ibis*, 1870, p. 201; ? *Hutt. Ibis*, 1870, p. 392 (Auckland, introduced); *Swinh. P. Z. S.* 1870, p. 446 (China), 1871, p. 397; *Holdsw. P. Z. S.* 1872, p. 467; *Lloyd, Ibis*, 1873, p. 414; *Hume, Str. Feath.* i. p. 218 (1873) (Sindh); *Adam, ibid.* p. 300 (1873) (Sambhur Lake); *Legge, Ibis*, 1874, p. 26; *Hume, Nests & Eggs*, p. 501 (1875); *id. Str. Feath.* iii. p. 165 (1873) (Upper Pegu); *Wald. in Blyth's B. Burm.* p. 146 (1875); *Blanf. East. Pers.* ii. p. 270 (1876) (Beluchistan); *Butl. & Hume, Str. Feath.* iv. p. 3 (1876); *Sclat. & Tayl. Ibis*, 1876, p. 62; *Swinh. Ibis*, 1876, p. 334, 1877, p. 145 (Tokio); *Fairb. Str. Feath.* v. p. 409 (1877); *David & Oust. Ois. Chine*, p. 387 (1877); *Dress. B. of Eur.* vii. p. 51, pl. 464. f. 2 (1877); *Blakist. & Pryer, Ibis*, 1878, p. 227 (Tokio); *Ball, Str. Feath.* vii. p. 224 (1878); *Cripps, ibid.* p. 297 (1878); *Anders. Yunnan Exped.* p. 666 (1878); *Hume, Str. Feath.* viii. p. 110 (1879); *Scully, Str. Feath.* viii. p. 342 (1879) (Nepal); *Wardl. Rams. Ibis*, 1880, p. 70 (Afghanistan); *Legge, B. Ceylon*, p. 702 (1880); *Blakist. & Pryer, Tr. As. Soc. Jap.* viii. p. 205 (1880), x. p. 129 (1882); *Salv. Cat. B. Strickl. Coll.* p. 546 (1882); *Swinh. Ibis*, 1882, p. 118 (Afghanistan); *Oates, Str. Feath.* x. p. 235 (1882) (Pegu); *id. B. Brit. Burm.* ii. p. 293 (1883); *Parker, Ibis*, 1883, p. 194 (Ceylon); *Shell. Ibis*, 1883, p. 308; *Marsh. Ibis*, 1884, p. 421 (Chamba); *Blakist. Amend. List B. Jap.* p. 25 (1884); *Tristr. Faun. & Flor. Palest.* p. 121 (1884); *Swinh. & Barn. Ibis*, 1885, p. 130; *Sharpe, Ibis*, 1886, p. 166 (Muscat); *Salvad. El. Ucc. Ital.* p. 192 (1887); *Hume, Str. Feath.* xi. p. 299 (1888); *St. John, Ibis*, 1889, p. 194 (Afghanistan); ? *Picaglia, Elenco Ucc. Mod.* p. 101 (1889) (Modena); *Tristr. Cat. Coll. B.* p. 39 (1889) (Jericho, Madras, Yokohama); *Hartert, Kat. Vogelsamml.* p. 188 (part.) (1891) (India).

Streptopelia risoria, *Bp. Consp. Av.* ii. p. 65 (part.) (1854); *id. Compt. Rend.* xl. pp. 18, 219, n. 189 (part.) (1855); *id. Coup d'œil Ordre Pig.* pp. 31, 57, n. 189 (part.) (1855); ? *Doderl. Avif. Mod. e Sic.* p. 345 (1869) (Modena); *G. R. Gr. Hand-list*, ii. p. 239, n. 9228 (part.) (1870); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 17 (1873).

Peristera ridens, *C. L. Brehm, Vogelf.* p. 257 (1855).

? Peristera intercedens, *C. L. Brehm, op. cit.* p. 258 (1855) (N. Africa!); *id. Naturg. u. Zucht d. Taub.* p. 72 (1857).

Turtur ridens, *C. L. Brehm, Naumannia*, 1855, p. 286.

Turtur intercedens, *C. L. Brehm, Naumannia*, 1855, p. 286; *Finsch & Hartl. Vög. Ostafr.* p. 545 (1870); *Severtz. in litt.*; *Dresser, Ibis*, 1876, p. 321; ? *Tristr. Cat. Coll. B.* p. 38 (1889) (Malacca!).

Streptopelia intercedens, *Rchnb. Tauben*, ii. p. 175 (1862); *G. R. Gr. Hand-list*, ii. p. 239, n. 9329 (1870); *Severtz. J. f. O.* 1873, p. 347, 1875, p. 180.

Turtur vitticollis, *Prjew.* (*nec Temm.*) *Mongolia*, ii. p. 111 (1876).

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* The Indian bird is not the wild type of the domestic breed (*Blyth*).

† Abundant in Algeria in summer (*Tristram*)!

Columba chinensis, *Severtz.* (*nec Scop.*) *Turk. Jevotn.* p. 68 (1873).
Turtur stoliczkæ, *Hume, Str. Feath.* ii. p. 519 (1874) (Kashgar, Turkestan), iii. pp. 217 note, 415 (1875); *Scully, Str. Feath.* iv. p. 178 (1876); *Legge, B. of Ceyl.* p. 702 (1880); *Sharpe, Sc. Res. Sec. Yark. Miss., Aves,* p. 117, pl. xiv. (1891).
Turtur risoria, *Stolicz.* (*nec Linn.*), *Str. Feath.* iii. p. 217 (1875) (Kashgar).
Turtur bitorquatus, *Mart.* (*nec Temm.*) *Preuss. Exp. Ost-As., Zool.* i. p. 370 (1877).
Streptopelia torquata, *Bogd.* (*nec Briss.*) *Tr. Sib. Obtsch. Jestestv.* xii. p. 98 (1881); *id. Consp. Av. Imp. Ross.* i. p. 9 (1884); *Menzb. Ibis,* 1885, p. 357 (Aksu, Kashgar); *Pleske, Mém. Ac. Péters.* (7) xxxvi. n. 3, p. 46 (Turkestan) (1888).
Turtur douraca torquatus, *Stejn. Pr. U.S. Nat. Mus.* 1887, p. 426.
Turtur torquatus, *Stejn. op. cit.* p. 427; *Taez. P. Z. S.* 1887, p. 609, 1888, p. 467 (Corea).

Adult male. Head, neck, and chest pale pink or vinous, fading into white on the chin; forehead paler; no black feathers in front of the eyes; on the hind neck a broad black collar, partially edged above and below with white; back, scapulars, and inner half of the wing-coverts, innermost secondaries, and central tail-feathers very pale brown, passing into pearl-grey on the outer upper wing-coverts and secondaries; rump partially washed with grey; bastard wing and primary-coverts pearl-grey, tipped with brown; primaries dark brown, generally with partial light edges; lateral tail-feathers leaden grey, fading gradually into white towards the tips; the under surface of the tail is sharply divided into a black base and a white-grey apical portion; on the outer feathers the black extends farther towards the end on the outer web; the pink of the chest shades into grey, of a deeper or lighter tint, on the flanks, abdomen, vent, and under tail-coverts; under wing-coverts very light pearl-grey; under surface of the quills brown, fading into ashy white on their inner webs towards the base of the feathers: irides red; bill black; legs dark pinkish red. Total length 11·9 inches, wing 6·8, tail 5, bill 1·6, tarsus 0·9.

Female. Similar to the male.

Hab. Odessa, Lower Danube, Turkey*, Palestine, Persia, India, Ceylon, Burmah, China, and also Japan.

a. ♀ ad. sk.	Jericho, Jan. (*Tristram*).	Shelley Coll.
b. ♀ ad. sk.	Ghor es Safieh, Palestine, Jan. (*Tristram*).	Seebohm Coll.
c. Ad. sk.	Ghor es Safieh, Palestine, Jan. (*Tristram*).	Salvin-Godman Coll.
d, e. Ad. sk.	Ghor es Safieh, Palestine.	Canon Tristram [C.].
f. Ad. sk.	Mesopotamia.	
g. Juv. sk.	Mesopotamia.	India Museum [P.].
h, i. Ad. sk.	Muscat.	Col. Miles [P.].
k, l. Ad. sk.	Persia.	Kenneth Loftus, Esq. [P.].

* I have been informed on good authority that this bird is very common even in Albania near Valona, which would be the most western part inhabited by it.

m, *n*. ♀ ad. et ad. sk.	Shikarpore.	India Museum [P.].
o. Ad. sk.	Chugar Serai.	India Museum [P.].
p, *q*. Ad. sk.	Cabul (*Griffith*).	India Museum [P.].
r. Ad. sk.	Khussah, Afghanistan (*Griffith*).	India Museum [P.].
s, *t*. ♂ ad. sk.	Gungazai, May.	Colonel Swinhoe [P.].
u. ♀ ad. sk.	Chainen, Aug.	Hume Coll.
v. Ad. sk.	Candahar.	India Museum [P.].
w. ♂ ad. sk.	Candahar, May (*Sir O. St. John*).	Hume Coll.
x. ♀ ad. sk.	Candahar, April.	Colonel Swinhoe [P.].
y. ♂ ad. sk.	Beluchistan, March.	W. T. Blanford, Esq. [C.].
z. ♀ ad. sk.	Larkhana, Feb. (*A. O. H.*).	Hume Coll.
a'. ♀ ad. sk.	Karachi, Dec. (*E. A. Butler*).	Hume Coll.
b'–k'. ♂ ♀ ad. sk.	Sambhur, Feb., May to July, and Nov. (*R. M. Adam*).	Hume Coll.
l'. ♀ ad. sk.	Sambhur, May (*R. M. Adam*).	Tweeddale Coll.
m'. Ad. sk.	Punjab.	Brigadier Hearsey [P.].
n', *o'*. ♂ ♀ ad. sk.	Delhi, Jan.	Hume Coll.
p'. Ad. sk.	Cashmere, Aug.	Hume Coll.
q'. Juv. sk.	Cashmere, July (*Bellew*).	India Museum [P.].
r'. ♂ ad. sk.	Simla, Sept. (*R. C. Beavan*).	Tweeddale Coll.
s', *t'*. ♂ ♀ ad. sk.	Umballah, Nov. (*R. C. Beavan*).	Tweeddale Coll.
u'. ♂ ad. sk.	Umballah, Nov. (*R. C. Beavan*).	Gould Coll.
v'. ♂ ad. sk.	Almorah, Aug.	Hume Coll.
w'. Ad. sk.	Kumaon (*Strachey*).	India Museum [P.].
x', *y'*, *z'*. Ad. sk.	Etawah, Jan., Sept.	Hume Coll.
a''. Ad. sk.	Agra, Jan.	Hume Coll.
b'', *c''*. Ad. sk.	Oudh, Feb., March.	Hume Coll.
d'', *e''*. Ad. sk.	Oudh.	Capt. Stackhouse Pinwill [P.].
f'', *g''*, *h''*. ♂ ♀ ad. sk.	Mogul Serai, Jan.	Hume Coll.
i''. ♂ ad. sk.	Nepal, Dec. (*J. Scully*).	Hume Coll.
k''–n''. Ad. sk.	Nepal.	B. H. Hodgson, Esq. [P.].
o'', *p''*. Ad. sk.	Nepal (*Hodgson*).	India Museum [P.]. (Types of species.)
q''. Ad. sk.	Darjeeling.	Hume Coll.
r'', *s''*, *t''*. Ad. sk.	Darjeeling.	India Museum [P.].
u''. ♂ ad. sk.	Bhotan Doars, April (*L. Mandelli*).	Hume Coll.
v''. ♂ ad. sk.	Brahmapootra, Dec. (*W. Davison*).	Hume Coll.
w''. Imm. sk.	Dibrughur, Feb. (*J. R. Cripps*).	Hume Coll.
x''. ♂ ad. sk.	Cachar, Jan. (*A. O. H.*).	Hume Coll.
y'', *z''*. ♂ ♀ ad. sk.	Munipur, Feb. (*A. O. H.*).	Hume Coll.
a[3]. Ad. sk.	Dacca.	Hume Coll.
b[3]. ♂ ad. sk.	Calcutta, May.	Hume Coll.

e^3. Ad. sk.	Maunbhoom, Feb. (*R. C. Beavan*).	Tweeddale Coll.
d^3. Ad. sk. [isabelline var.].	Raipur.	Hume Coll.
e^3, f^3, g^3. Ad. sk.	Kamptee.	Dr. R. B. Hinde [P.].
h^3, i^3. ♀ ad. et ♂ juv. sk.	Mhow, Oct.	Colonel Swinhoe [P.].
k^3. ♀ ad. sk.	Wadale, Nov. (*S. B. Fairbank*).	Tweeddale Coll.
l^3. ♂ ad. sk.	Ahmednugger, Nov. (*S. B. Fairbank*).	Tweeddale Coll.
m^3. Ad. sk.	Madras.	India Museum [P.].
n^3. Ad. sk.	Deccan (*Burgess*).	Gould Coll.
o^3. ♂ ad. sk.	Near Segore, Feb.	Hume Coll.
p^3. Ad. sk.	Mysore, Aug. (*R.G.W.R.*).	Tweeddale Coll.
q^3. ♀ ad. sk.	Gundalupet, Mysore, May (*W. Davison*).	Hume Coll.
r^3. Ad. sk.	Malabar?	Salvin-Godman Coll.
s^3. Ad. sk.	Sanju, Yarkand, Nov. (*F. Stoliczka*).	India Museum [P.].
t^3. ♀ ad. sk.	Turkestan, April (*Severtzoff*).	Seebohm Coll.
u^3, v^3. ♂ ad. sk.	Kansu, March (*Prjevalski*).	Seebohm Coll.
w^3. Ad. sk.	Pao-an-hein, China, Sept. (*R. Swinhoe*).	Seebohm Coll.
x^3, y^3. Ad. sk.	Senen-hwa-hien, China.	Seebohm Coll.
z^3. Ad. sk.	Japan.	Tweeddale Coll.
a^4. Ad. sk.	Yeddo (*C. McVean*).	Tweeddale Coll.
b^4. ♂ ad. sk.	Tokio, Japan (*Oda*).	Seebohm Coll.

22. Turtur humilis.

Columba humilis, *Temm. Pl. Col.* 259 (♂) (nec pl. 258) (livr. 44, 1824) (Bengal, Luçon); *Steph. Gen. Zool.* xiv. p. 280 (part.) (1826); *Desm. Dict. Sc. Nat.* xl. p. 350 (1826); *Wagl. Syst. Av.* Columba, sp. 95 (1827); *Knip & Prév. Pig.* ii. pl. 7 (1838–43); *Homey. J. f. O.* 1870, p. 170.

Peristera humilis, *Boie, Isis*, 1828, p. 327.

Turtur humilis, *G. R. Gr. Gen. B.* ii. p. 472, n. 7 (1844); *Rchnb. Syn. Av.* f. 1370 (1847) (*ex Temminck*); *Swinh. Ibis*, 1860, p. 63 (Amoy), 1861, p. 49, 1862, p. 261, 1863, p. 397 (Formosa); *id. P. Z. S.* 1863, p. 306; *Blyth, Mouat's App.* p. 362 (1863); *Jerd. B. of Ind.* iii. p. 482 (part.) (1864); *Swinh. Ibis*, 1865, pp. 355, 541, 542; *Wall. Ibis*, 1865, pp. 392, 399 (part.); *id. J. f. O.* 1866, p. 283 (part.); *Blyth, Ibis*, 1867, p. 151 (part.); ? *Beav. Ibis*, 1867, p. 332 (Chatham I., Andamans); *Sclat. P. Z. S.* 1869, p. 627; *Swinh. Ibis*, 1870, pp. 80, 356 (Hainan); *id. Ibis*, 1871, p. 397; *Schleg. Mus. P.-B.* Columbæ, p. 125 (part) (1873) (Halmahera); *Hume, Str. Feath.* ii. p. 269 (Andamans) (1874); *Swinh. Ibis*, 1875, p. 125 (Chefoo); *Hume, Nests and Eggs*, p. 507 (part.) (1875); *Wald. Trans. Zool. Soc.* ix. p. 219 (1875); *id. in Blyth's B. Burm.* p. 145 (1875); ? *Hume, Str. Feath.* iii. p. 165 (Pegu) (1875), iv. p. 292 (Andamans) (1876); *Armstr. & Hume, Str. Feath.* iv. p. 338 (1876); *Tacz. Bull. Soc. Zool. Fr.* i. p. 24 (1876); *Sharpe, Tr. Linn. Soc.* (2) *Zool.* i. pp. 347, 353 (1876); *Gieb. Thes. Orn.* iii. p. 272 (part.) (1877); *David & Oust. Ois. Chine*, p. 388 (part.) (1877); *Hume & Davids. Str. Feath.* vi. p. 423

(1878); *Hume, Str. Feath.* viii. p. 210 (1879); *Bingh. Str. Feath.* ix. p. 194 (1880); *Tweedd. Orn. Works*, p. 383 (1881); *Wardl. Rams. ibid.* p. 659 (1881); *Tacz. J. f. O.* 1881, p. 187 (Askold I.); *Oates, Str. Feath.* x. p. 235 (1882); *id. Birds of Brit. Burm.* ii. p. 294 (1883); *Blakist. Amend. List B. Jap.* p. 43 (1884); *Seebh. Ibis*, 1884, p. 179; ? *Marsh. Ibis*, 1884, p. 421 (Chamba); *Stejn. Pr. U.S. Nat. Mus.* 1887, p. 428; *Hume, Str. Feath.* xi. p. 299 (1888) (Manipur, N.E. Cachar); *Tristr. Cat. Coll. B.* p. 38 (Formosa) (1889); *Salvad. Ann. Mus. Civ. Gen.* (2) vii. p. 424 (1889); *Steere, List*, p. 24 (1890) (Mindoro, Luzon); *Hartl. Abh. nat. Ver. Brem.* xi. p. 406 (Extr. p. 14) (1890); *Seebh. B. Jap. Emp.* p. 162 (1890); *Styan, Ibis*, 1891, pp. 328, 439 (China); *Hartert, Kat. Vogelsamml.* p. 188 (1891); *id. J. f. O.* 1891, p. 300.

Columba (?) terrestris, *Temm. fide Rchnb. Syn. Av.* Columbariæ, p. 3 (1847).

Streptopelia humilis, *Bp. Consp. Av.* ii. p. 66 (part.) (1854); *id. Compt. Rend.* xl. pp. 18, 219, n. 193 (part.) (1855); *id. Coup d'œil Ordre Pig.* pp. 32, 57, n. 193 (part.) (1855); *id. Compt. Rend.* xli. p. 659 (1855); *Rchnb. Tauben*, i. p. 76, t. 247. f. 1870 (1862); *G. R. Gr. Hand-list*, ii. p. 239, n. 9331 (part.) (1870).

Turtur terrestris, *Mercatorum, fide Bp. Compt. Rend.* xl. p. 18 (1855); *id. Coup d'œil Ordre Pig.* p. 32 (1855).

Columba (Peristera) humilis, *Schrenck, Vög. d. Amur-L.* p. 284 (1860).

Turtur (Streptopelia) humilis, *v. Mart. J. f. O.* 1866, p. 24.

Turtur humilior, *Hume, Proc. As. Soc. Beng.* 1874, p. 241 (Andamans); *id. Str. Feath.* iii. pp. 279, 280 (1875).

Turtur tranquebaricus, *Blyth* (*nec Herm.*), *B. Burm.* p. 145 (1875).

Turtur sp., *Blakist. & Pryer, Tr. As. Soc. Jap.* x. p. 129 (1882).

Adult male. Vinous red; head, lower back, rump, upper tail-coverts, under wing-coverts, and flanks grey; head paler, especially on the forehead; chin whitish, changing into the vinous red of the neck; a black collar on the hind neck, dividing the grey of the head from the vinous red of the upper parts; outer greater wing-coverts dark greyish; primary-coverts and quills blackish, with narrow pale edges; lower abdomen ashy; under tail-coverts white, more or less tinged with grey; central tail-feathers ashy brown, the others dark ashy, with a broad terminal ashy-white band, the white also occupying the outer web of the outermost feathers: "bill black; iris dark brown; legs and feet purplish red" (*Chennell*). Total length about 9 inches, wing 5·5, tail 3·5, bill 0·52, tarsus 0·72.

Female. General colour pale brown, but the lower parts vinous grey where vinous red in the male; there is a black collar as in the male, but edged above with whitish grey.

Hab. From Cachar through Burmah to the Andamans, and eastward to Cochinchina, China, and the Philippine Islands.

a. Ad. st.	[India].	Baron Laugier's Coll.
b, c, d. ♂ ad. et ♂ juv. ak.	Shillong, June, July (*A. W. Chennell*).	Tweeddale Coll.
e. ♀ ad. ak.	Naga District, Feb. (*J. B. Fairbank*).	Tweeddale Coll.

f. ♂ ad. sk.	Barak R., Cachar, Jan. (*W. Davison*).	Hume Coll.
g–o. ♂ ♀ ad. ak.	Munipur, Jan., Feb., March (*A. O. H.*).	Hume Coll.
p. ♂ ad. sk.	Dacca.	Hume Coll.
q. ♂ ad. sk.	Tipperah.	Hume Coll.
r. [♂] ad. sk.	Akyab, March (*J. Armstrong*).	Hume Coll.
s, t. ♂ ♀ ad. sk.	Lower Pegu, March.	E. W. Oates, Esq. [P.].
u. ♀ juv. sk.	Thoungyah, Oct. (*J. Darling*).	Hume Coll.
v, w, x. ♂ ♀ ad. sk.	Amherst, Dec., Jan. (*W. Davison*).	Hume Coll.
y–b'. ♂ ♀ ad. sk.	Tavoy, March (*W. Davison*).	Hume Coll.
c'. ♂ ad. sk.	Tavoy, April (*W. Davison*).	Salvin-Godman Coll.
d'. ♂ ad. sk.	Karen Nee, March (*R. G. W. R.*).	Tweeddale Coll.
e', f', g'. ♂ ♀ ad. sk.	Tonghoo, Jan., Nov., Dec. (*R. G. W. R.*).	Tweeddale Coll.
h', i'. ♂ ♀ ad. sk.	Tenasserim Town, Nov. (*W. Davison*).	Hume Coll.
k', l'. ♂ ♀ ad. sk.	Pakchan, Jan. (*W. Davison*).	Hume Coll.
m'. ♀ ad. sk.	Houngthraw R., Jan. (*W. Davison*).	Hume Coll.
n', o'. ♀ ad. sk.	Thatone, Jan., Feb. (*W. Davison*).	Hume Coll.
p'. ♀ ad. sk.	Pabyouk, Attaran Distr., March (*W. Davison*).	Hume Coll.
q'. ♀ ad. sk.	Thoungyeen R., Sept. (*C. T. Bingham*).	Hume Coll.
r'. ♀ imm. sk.	Malacca.	Wallace Coll.
s', t'. ♀ ad. sk.	Malacca (*Dr. Maingay*).	Tweeddale Coll.
u'. ♂ imm. sk.	S. Andamans, Jan. (*R. J. Wimberley*).	Tweeddale Coll.
v'. ♀ ad. sk.	S. Andamans, Aug. (*R. J. Wimberley*).	Hume Coll.
w', x'. ♀ ad. et imm. sk.	Aberdeen, S. Andamans, April, Nov. (*F. A. de Roepstorff & W. Davison*).	Hume Coll.
y'. ♀ ad. sk.	Aberdeen, S. Andamans, Nov. (*C. W. Dwyer*).	Tweeddale Coll.
z'. ♂ ad. sk.	Cambodia (*Mouhot*).	Tweeddale Coll.
a''. ♀ ad. sk.	Saigon, Cochin China.	M. St. Pierre [P.].
b''. ♀ ad. sk.	Hainan, China, Feb. (*R. Swinhoe*).	Seebohm Coll.
c''–g''. ♂ ad. et pull. sk.	S.W. Formosa (*R. Swinhoe*).	Seebohm Coll.
h''. ♂ ad. sk.	S.W. Formosa (*R. Swinhoe*).	Salvin-Godman Coll.
i''. ♂ ad. sk.	Zaidam, Sept. (*Prjevalski*).	Seebohm Coll.
k''. ♂ ad. sk.	Tungshan, Jan. (*Prjevalski*).	Tweeddale Coll.
l'', m''. ♀ ad. sk.	Canton (*Tuckett*).	Tweeddale Coll.
n'', o''. ♂ ♀ ad. sk.	Amoy.	R.Swinhoe, Esq. [C.].
p'', q''. ♂ ♀ ad. sk.	Amoy, Oct. (*R. Swinhoe*).	Seebohm Coll.

y''. ♂ ad. sk.	Foochow, May (*R. Swinhoe*).	Seebohm Coll.
z''. ♀ ad. sk.	Shanghai, Sept. (*R. Swinhoe*).	Seebohm Coll.
t'', *u''*. ♂ ad. sk.	Luzon, Jan., Feb. (*A. B. Meyer*).	Tweeddale Coll.
v'', *w''*. ♂ ♀ ad. sk.	Philippine Is. (*Cuming*).	Gould Coll.
x''. ♂ ad. sk.	Yokohama Market, Feb. (*O. Snow*).	Seebohm Coll.

23. Turtur tranquebaricus.

Columba tranquebarica, *Herm. Obs. Zool.* p. 200 (1804) (ex Tanquebaria).

Columba humilis, *Steph.* (*nec. Temm.*) *Gen. Zool.* xiv. p. 280 (1826) (India); *Less. Tr. d'Orn.* p. 474 (1831) (Bengala); *Frankl. P. Z. S.* 1831, p. 122; *Sykes, P. Z. S.* 1832, p. 150, n. 141 (Dukhun); *Less. Compl. de Buff., Ois.* viii. p. 52 (1837); *id. op. cit.* 2nd ed. p. 283 (part.) (1838).

? Columba risoria (minor), *Frankl. P. Z. S.* 1831, p. 122 (female ?).

Oena murwensis, *Hodgs., in Gray's Zool. Misc.* p. 85 (1844).

Turtur humilis, *G. R. Gr. List Gallinæ Brit. Mus.* p. 12 (1844); *id. Gen. B.* ii. p. 472, n. 7 (part.) (1844); *Blyth, J. A. S. B.* xiv. p. 872 (1845); *Hartl. Erst. Nachtr. Verz.* p. 17, n. 176 (1846); *Blyth, Ann. & Mag. N. H.* xix. p. 182 (1847); *id. Cat. B. Mus. A. S. B.* p. 236, n. 1432 (1849); *Kelaart, Prodr. Cat.* p. 130 (1852); *Layard, Ann. & Mag. N. H.* xiv. p. 60 (1854); *Blyth, J. A. S. B.* xxiv. p. 261 (note) (1855); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 45 (1856) (India, Nepal); *Adams, P. Z. S.* 1858, p. 497, 1859, p. 187; *Jerd. B. of Ind.* iii. p. 482 (part) (1864); *Blyth, Ibis*, 1867, p. 157 (part.); *Beav. Ibis*, 1868, p. 376; *Hume, Ibis*, 1869, p. 19 (nest & egg); *Lloyd, Ibis*, 1873, p. 414 (N. India); *Hume, Str. Feath.* i. p. 218 (1873); *Schleg. Mus. P.-B.* Columbæ, p. 123 (part.) (1873); *Butl. Str. Feath.* ii. p. 424 (1874); *Hume, Nests & Eggs*, iii. p. 507 (1875); *Butl. & Hume, Str. Feath.* iv. p. 3 (1876); *Fairb. Str. Feath.* iv. p. 262 (1876); *Gieb. Thes. Orn.* iii. p. 727 (1877); *Tiraud, Bull. Com. Agr. et Ind. Cochinch.* (3) i. p. 143, n. 257 (1879); ?*Bidd. Ibis*, 1882, p. 286 (Gilgit); ? *Sclat. List Vert. An.* 8th ed. p. 454 (India) (1883); *Tristr. Cat. Coll. B.* p. 38 (part.) (1889).

Streptopelia humilis, *Bp. Consp. Av.* ii. p. 66 (part.) (1854); *id. Compt. Rend.* xl. pp. 18, 219, n. 193 (part.) (1855); *id. Coup d'œil Ordre Pig.* pp. 32, 57, n. 193 (part.) (1855); *G. R. Gr. Hand-list*, ii. p. 239, n. 9332 (part) (1870); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 17 (1873).

? Streptopelia humilis (senescens), *Bp. Consp. Av.* ii. p. 66 (1854) (Mus. Paris a Danaide).

? Oena muroensis, *Hodgs. apud Bp. Consp. Av.* ii. p. 66, in syn. sp. 9 (1854); *id. Compt. Rend.* xl. p. 18 (1855); *id. Coup d'œil Ordre Pig.* p. 31 (1855).

? Turtur muroensis, *Bp. Compt. Rend.* xli. p. 659 (1855); *Reichb. Tauben*, ii. p. 176 (1862).

? Turtur murwensis, *Bp. Compt. Rend.* xliii. n. 942 (1856).

Turtur tranquebarica, *Wald. Trans. Zool. Soc.* ix. p. 219 (1875); *Hume, Str. Feath.* iv. p. 292 (1876); *Davids. & Wend. Str. Feath.* vii. p. 86 (1878); *Ball, ibid.* p. 224 (1878); *Cripps, ibid.* p. 297 (1878); *Salv. Cat. B. Strickl. Coll.* p. 546 (1883) (Malacca !, Madras).

Turtur tranquebaricus, *Hume, Str. Feath.* viii. p. 110 (1879); *Legge, B. Ceyl.* p. 708 (1880); *Bidd. Ibis*, 1882, p. 286; *Swinh. & Barn. Ibis*, 1885, p. 131; *Hartert, J. f. O.* 1889, p. 440 (juv.); *Seebh. B. Jap. Emp.* p. 163 (1890).
Æna murmensis, *Hodgs. fide Bidd. Ibis*, 1882, p. 286.

Very similar to *T. humilis*, from which it differs in having the under wing-coverts much lighter, almost ashy white. I cannot find that the plumage is of a lighter vinous red, or the head and rump paler. The Nepal and Darjeeling birds approach the Eastern birds, and are intermediate between them and the Indian ones.

Hab. India, as far towards N.E. as Nepal and Darjeeling.

a. Ad. st.	India.	Gould Coll.
b. ♂ ad. sk.	Hydrabad, Sindh, April (*E. A. Butler*).	Hume Coll.
c. ♂ ad. sk.	Aboo.	Hume Coll.
d. ♂ ad. sk.	Aboo.	Capt. Butler [C.].
e–q. ♂ ♀ ad. et juv. sk.	Sambhur, March to Sept., Dec. (*R. M. Adam*).	Hume Coll.
r. ♂ ad. sk.	Sambhur, April (*R. M. Adam*).	Salvin-Godman Coll.
s, t. ♂ ad. sk.	Delhi, May.	Hume Coll.
u, v. ♂ ad. sk.	Gurgaon District, Jan., April (*W. N. Chill & A. O. H.*).	Hume Coll.
w. ♂ ad. sk.	Agra, May.	Hume Coll.
x. ♂ ad. sk.	Umballah, Nov. (*R. C. Beavan*).	Tweeddale Coll.
y, z, a'. ♂ ♀ ad. sk.	Bareilly, May.	Hume Coll.
b'–e'. ♂ ♀ **ad. sk.**	**Etawah.**	**Hume Coll.**
f', g', h'. ♂ ♀ ad. sk.	Oudh, Feb., Dec.	Hume Coll.
i'. ♂ ad. sk.	Oudh.	Capt. Stackhouse Pinwill [P.].
k', l'. ♂ ♀ ad. sk.	Futtehgurh, May.	Seebohm Coll.
m'. ♂ ad. sk.	Urrum, Feb. (*A. Anderson*).	Hume Coll.
n'. ♀ ad. sk.	Mogul Serai, Jan.	Hume Coll.
o', p', q'. ♂ ad. sk.	Nepal.	B. H. Hodgson, Esq. [P.].
r'–x'. ♂ ♀ ad. sk.	Nepal (*B. H. Hodgson*).	India Museum [P.]. (Types of *Æna murmensis*, Hodgs.)
y'. ♂ ad. sk.	Darjeeling Terai, Dec. (*L. Mandelli*).	Hume Coll.
z'. ♂ ad. sk.	Darjeeling, Aug. (*L. Mandelli*).	Seebohm Coll.
a'', b'', c''. ♂ ad. sk.	Bhotan Doars, Dec., Jan., Feb. (*L. Mandelli*).	Hume Coll.
d''. ♂ ad. sk.	Maunbhoom, Jan. (*R. C. Beavan*).	Tweeddale Coll.
e''. ♂ ad. sk.	Raipur.	Hume Coll.
f''. ♀ ad. sk.	Saugor (*Hooper*).	India Museum [P.].
g''. ♂ ad. sk.	Kamptee.	Dr. R. B. Hinde [P.].
h''–l''. ♂ ♀ ad. et ♂ juv. sk.	Mhow, March, April, Oct., & Dec.	Colonel Swinhoe [P.].
m''. ♂ ad. sk.	Khandeish, Oct. (*J. Davidson*).	Hume Coll.

n'', *o''*, *p''*. ♂ ♀ ad. ak.	Wadale, Nov., Dec. (*S. B. Fairbank*).	Tweeddale Coll.
q''–w''. ♂ ♀ ad. et ♂ juv. ak.	Ahmednugger, June, Nov., Dec. (*S. B. Fairbank*).	Tweeddale Coll.
x'', *y''*. ♂ ♀ ad. ak.	Madras.	Gould Coll.
z''. Skeleton.	India.	Purchased.

δ. SPILOPELIA.

Type.

Spilopelia, *Sundev. Meth. nat. Av. disp. Tent.* p. 100 (1872) ..... T. chinensis.

Range. Oriental Region and Malay Archipelago, eastwards as far as Amboyna.

Key to the Species.

a. Under tail-coverts grey; wing-coverts pale brown, unspotted ..... *chinensis*, p. 439.
b. Under tail-coverts white; wing-coverts with dark brown shaft-lines ..... *tigrinus*, p. 440.
c. Under tail-coverts white or white-grey; wing-coverts with two reddish spots on the sides of the tip ..... *suratensis*, p. 444

24. Turtur chinensis.

Tourterelle grise de la Chine, *Sonn. Voy. Ind.* ii. p. 172, pl. 102 (1782).
Chinese grey Turtle, *Lath. Syn.* ii. 2, p. 649, n. 42 (1783).
Columba chinensis, *Scop. Del. Flor. et Faun. Insubr.* p. 94, n. 90 (1786).
Columba risoria, var. β, *Gm. S. N.* i. p. 787 (1788); *Lath. Ind. Orn.* ii. p. 608 (1790).
Columba tigrina, part., *Temm. Pig. et Gallin.* i. pp. 317, 481 (1813); *Steph. Gen. Zool.* xi. p. 78 (part.) (1819); *Desm. Dict. Sc. Nat.* xl. p. 347 (part.) (1826); *Wagl. Syst. Av.* Columba, sp. 96 (part.) (1827); *Less. Compl. de Buff., Ois.* viii. p. 51 (part.) (1837); *id. op. cit.* 2nd ed. p. 283 (part.) (1838).
Turtur chinensis, *G. R. Gr. Gen. B.* ii. p. 472, n. 9 (part.) (1844); *Blyth, J. A. S. B.* xiv. p. 875 (1845); *id. Ann. & Mag. N. H.* xix. p. 185 (1847); *id. Cat. B. Mus. A. S. B.* p. 236, n. 1844 (1849); *Bp. Consp. Av.* ii. p. 63 (1854); *id. Compt. Rend.* xl. p. 17 (part.), p. 19, n. 183 (part.) (1855); *id. Coup d'œil Ordre Pig.* pp. 30, 57, n. 183 (part.) (1855); *Blyth, J. A. S. B.* xxiv. p. 263 (note), p. 480 (1855); *Cass. Narr. Perry's Exped.* ii. p. 244 (1858); *Swinh. Ibis*, 1860, p. 62, 1861, p. 49, 1862, p. 261; *Rchnb. Tauben*, i. p. 72 (1862), ii. p. 174, *Novit. Suppl.* t. iii. f. 26 (1862); *Swinh. P. Z. S.* 1863, p. 306; *id. Ibis*, 1863, p. 397 (Formosa), 1865, p. 540; *Wall. Ibis*, 1865, p. 391; *id. J. f. O.* 1866, p. 283; *Swinh. Ibis*, 1866, p. 292, 1867, p. 396, 1870, p. 356 (Hainan); *G. R. Gr. Hand-list* ii. p. 288, n. 9316 (part.) (1870); *Swinh. P. Z. S.* 1871, p. 397; *Schleg. Mus. P.-B. Columbæ*, p. 127 (1873); *Garr. P. Z. S.* 1874, p. 266; *David & Oust. Ois. Chine*, p. 386 (1877); *Gieb. Thes. Orn.* iii. p. 726 (1877); *Finsch, Ibis*, 1880, p. 78 (Honolulu, introduced); *Kelh. Ibis*, 1881, p. 528; *Sclater, Ibis*, 1882, p. 435; *Müll. J. f. O.* 1882, p. 422; *Sclat. List Vert. An.* 5th ed. p. 456 (1883); *Seeb. Ibis*,

1884, p. 266; *Tristr. Cat. Coll. B.* p. 38 (1889); *Hartl. Abh. nat. Ver. Brem.* xi. p. 406 (Extr. p. 14) (1890) (China); *Styan, Ibis*, 1891, pp. 328, 498 (China).

Turtur tigrinus, *Hartl. (nec auct.) Syst. Verz.* p. 99 (1844) (*fide Finsch*).

Turtur sinensis, *Blyth, J. A. S. B.* xxiv. p. 480 (1855).

Spilopelia chinensis, *Sundev. Meth. nat. Av. disp. Tent.* p. 100 (1872).

Adult male. Head grey, paler on the forehead; occiput tinged with vinous; nape black, with white spots at the tip of the feathers; upper parts pale brown; outermost wing-coverts lead-grey; underparts rich vinous, lighter on the chin and on the abdomen; inner under wing-coverts almost black; sides, marginal under wing-coverts, axillaries, and under tail-coverts grey; three outer tail-feathers black, broadly tipped with white, next feather black, tipped with grey, two central feathers uniform brown, next pair darker brown, almost black, with the base greyish: "iris orange-red; bill brown; feet rose" (*David*). Total length about 13 inches, wing 6·2, tail 6, bill 0·8, tarsus 0·05.

Female. Like the male: "iris yellow" (*David*).

Young. Paler and duller; no black patch and no white spots on the hind neck; scapulars, upper wing-coverts, and upper tail-coverts with narrow pale edges.

Hab. Eastern China from Canton to Shanghai; Formosa and Hainan.

a. ♂ ad. sk.	China.	Seebohm Coll.
b, c, d. **Ad. sk.**	**Fokien, China.**	**Gould Coll.**
e. Ad. sk.	Chusan, China, Dec.	Gould Coll.
f. ♀ ad. sk.	Is. Kintang, April.	Mrs. Ince [P.].
g. ♂ imm. sk.	Shanghai, Jan.	Shanghai Museum [P.].
h. Ad. sk.	Amoy.	R. Swinhoe, Esq. [C.].
i–m. Ad. et imm. sk.	Amoy, China, April, June, July (*R. Swinhoe*).	Seebohm Coll.
n. Ad. sk.	Amoy, China, Jan. (*R. Swinhoe*).	Tweeddale Coll.
o. Juv. sk.	Amoy, China, Sept.	Gould Coll.
p. Ad. sk.	S.W. Formosa (*R. Swinhoe*).	Hume Coll.
q. Ad. sk.	S.W. Formosa (*R. Swinhoe*).	Seebohm Coll.
r. Ad. sk.	S.W. Formosa (*R. Swinhoe*).	Salvin-Godman Coll.
s. Ad. sk.	Formosa, March (*R. Swinhoe*).	Tweeddale Coll.
t, u. Ad. et juv. sk.	Hainan.	R. Swinhoe, Esq. [C.].
v, w. Ad. sk.	Hainan, March (*R. Swinhoe*).	Tweeddale Coll.
x, y, z. Ad. sk.	Hainan, Feb. (*R. Swinhoe*).	Seebohm Coll.

25. Turtur tigrinus.

Columba tigrina, *Temm. & Knip, Pig.* i. pl. 43 (1808–11); *Temm. Pig. et Gallin.* i. pp. 317, 481 (syn. emend.) (1813); *Vieill. N. D.* xxvi. p. 380 (1818); *Steph. Gen. Zool.* xi. p. 78 (part.) (1819) *Horsf. Trans. Linn. Soc.* xiii. p. 183 (1821); *Desm. Dict. Sc. Nat.*

xl. p. 347 (1826); *Wagl. Syst. Av.* Columba, sp. 96 (syn. emend.) (1827); *Less. Tr. d'Orn.* p. 473 (1831); *id. Compl. de Buff., Ois.* viii. p. 51 (part.) (1837); *id. op. cit.* 2nd ed. p. 283 (1838); *S. Müll. Verh. Land- en Volkenk.* p. 109 (1839–44); *Schleg. Handl. Dierk.* i. p. 404 (1857); *Rosenb. Reist. naar Geelvinkb.* p. 8 (1875); *Gulliv. P. Z. S.* 1875, p. 489.

? Columba turtur, var., *Raffl. Tr. Linn. Soc.* xiii. p. 318 (1822) (Sumatra).

Peristera suratensis, *Boie* (*nec Gm.*), *Isis*, 1828, p. 327.

Columbina inornata, *G. R. Gr. List Gallinæ B. M.* p. 13 (1844) (juv.).

Turtur chinensis, *G. R. Gr. Gen. B.* ii. p. 472, n. 9 (part.) (1844); *Rchnb. Syn. Av.* ff. 1361-62 (1847); *Bp. Consp. Av.* ii. p. 63 (part.) (1854); *id. Compt. Rend.* xl. pp. 17, 219, n. 183 (1855); *id. Coup d'œil Ordre Pig.* pp. 30, 57, n. 183 (1855); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 42 (part.) (1856); *Wall.* (*nec Scop.*) *Ibis*, 1860, p. 147; *Pelz. Novar. Reis., Vög.* p. 108 (1865); *G. R. Gr. Hand-list*, ii. p. 238, n. 9316 (part.) (1870); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 16 (1873).

Columba chinensis, *Thienem.* (*nec Scop.*) *Fortpfl.* p. 59, t. xi. f. 6 (egg) (1846).

Turtur suratensis (part.), *Blyth, J. A. S. B.* xv. p. 372 (1846); *id. Ann. & Mag. N. H.* xix. p. 184 (1847); *Gould, P. Z. S.* 1859, pp. 150, 151; *G. R. Gr. P. Z. S.* 1860, p. 361; *Schomb. Ibis*, 1864, p. 252 (Siam).

Turtur tigrinus, *Blyth, J. A. S. B.* xxiv. pp. 263 (note), 480 (1855); *Moore, P. Z. S.* 1859, p. 467; *Rchnb. Tauben*, i. p. 72, t. 246. ff. 1361-62 (1862), ii. p. 174 (1862); *Sclat. P. Z. S.* 1863, p. 221; *Blyth, Mouat's App.* p. 362 (1863); *Wall. J. f. O.* 1865, p. 283; *Swinh. Ibis*, 1866, p. 292 (Siam); *Blyth, Ibis*, 1867, p. 150; *Beav. Ibis*, 1868, p. 376; *Blanf. Ibis*, 1870, p. 469 (Thayet-myo); *Blyth, J. A. S. B.* xxxix. pt. 2, p. 332 (1870); *Ball, Str. Feath.* i. p. 80 (1872); *Schleg. Mus. P.-B.* Columbæ, p. 127 (1873); *Blyth & Wald. B. of Burm.* p. 145 (1875); *Brüggem. Abh. naturw. Ver. Brem.* v. p. 87 (1876); *Pelz. Verh. z.-b. Ges. Wien*, 1876, p. 720; *Gieb. Thes. Orn.* iii. p. 728 (1877); *Oates, Str. Feath.* v. p. 164 (1877); *Anders. Yunn. Exped.* p. 665 (1878); *Hume & Davis. Str. Feath.* vi. p. 422 (1878); *Hume, Str. Feath.* viii. p. 110 (1879); *Rosenb. Malay. Archip.* p. 407 (1879); *Bingh. Str. Feath.* ix. p. 194 (1880); *Kelh. Ibis*, 1881, p. 528 (Malacca); *Bock, Ibis*, 1882, p. 475 (Sumatra); *Müll. J. f. O.* 1882, pp. 431, 432 (Salanga); *Salv. Cat. B. Strickl. Coll.* p. 545 (1882); *Oates, Str. Feath.* x. p. 235 (1882); *id. B. Burm.* ii. p. 290 (1883); *Snellem. Sum.-Exp., Vogels*, p. 48 (1884); *Vorderm. N. T. N. I.* xliv. p. 228 (1884), xlv. p. 404 (1885); *Müll. J. f. O.* 1885, p. 160; *Hume, Str. Feath.* xi. p. 299 (1888) (N.E. Cachar); *Tristr. Cat. Coll. B.* p. 39 (1889); *Hartert, J. f. O.* 1889, p. 376 (Sumatra).

Metriopelia inornata, *Bp. Consp. Av.* ii. p. 76 (1854); *id. Compt. Rend.* xl. pp. 24, 220, n. 225 (1855); *id. Coup d'œil Ordre Pig.* pp. 40, 58, n. 225 (1855); *Burm. Syst. Ueb. Th. Bras., Vög.* ii. p. 301 (1856).

Melopelia inornata, *Bp. Compt. Rend.* xliii. pp. 945, 949 (1856).

Peristera inornata, *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 53 (1856); *Pelz. Orn. Bras.* pp. 278 (note), 451 (1871).

Metriopeleia inornata, *Rchnb. Tauben*, i. p. 18 (1862); *G. R. Gr. Hand-list*, ii. p. 242, n. 9371 (1870).

Turtur tigrina, *Wall. P. Z. S.* 1863, p. 486; *id. Ibis*, 1865, p. 391;

Finsch, Neu-Guin. p. 178 (1865); *Wald. Tr. Zool. Soc.* vii. p. 85 (1872); *id. Ibis*, 1872, p. 381 (N. Borneo); *Hume, Str. Feath.* i. p. 461 (1873); *id. Nests & Eggs*, p. 506 (1873); *id. Str. Feath.* ii. pp. 269, 481 (1874), iii. pp. 14, 164 (1875); *Armstr. Str. Feath.* iv. p. 337 (1876); *Hume, Str. Feath.* iv. p. 424 (note) (1876); *Anders. Yunn. Exped.* p. 665 (1878); *Meyer, Ibis*, 1879, p. 137; ? *Tiraud, Bull. Com. Agr. et Ind. Cochinch.* (3) i. p. 142, n. 255 (1879); *Sharpe, Ibis*, 1888, p. 203 (Palawan); *Whiteh. Ibis*, 1890, p. 57.

? Turtur suratensis, *Ibis*, 1864, p. 252 (Siam); *Swinh. Ibis*, 1866, p. 292.

Spilopelia tigrina, *Sundev. Meth. nat. Av. disp. Tent.* p. 100 (1872); *Salvad. Cat. Ucc. Born.* p. 296 (1874); *id. Ann. Mus. Civ. Gen.* vii. p. 673 (1875), ix. p. 205, n. 70 (1876); *Tweedd. Ibis*, 1877, p. 322 (Lampong); *Salvad. Ann. Mus. Civ. Gen.* xiv. p. 247 (1879); *Sharpe, P. Z. S.* 1881, p. 799 (Sandakan); *Meyer, Verh. z.-b. Ges. Wien*, 1881, pp. 766 (Sumba), 769 (Wetter), 772 (Daweloor); *Salvad. Orn. Pap. e Mol.* iii. p. 151 (1882); *Blas. J. f. O.* 1883, p. 139 (Celebes); *Meyer, Zeitschr. f. ges. Orn.* i. pp. 195, 215 (Timor-laut) (1884); *Guillem. P. Z. S.* 1885, p. 510 (Sumbawa) (var. with light yellow iris), p. 558 (Menado and Talisse Island, iris brown); *Büttik. Not. Leyd. Mus.* ix. p. 76 (1886); *Salvad. Ann. Mus. Civ. Gen.* (2) ix. p. 490 (1890); *Vorderm. N. T. N. I.* xlix. p. 413 (1889), l. p. 508 (1890); *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 63 (*Agg. Orn. Pap. e Mol.* p. 189) (1891); *Vorderm. N. T. N. I.* li. pp. 401, 422 (1892).

Chamæpelia inornata, *Gieb. Thes. Orn.* i. p. 634 (1872).

Turtur striatus (*errore*), *Schleg. Mus. P.-B.* Columbæ, p. 127 (1873).

Adult. Head vinous grey, greyer on the forehead and cheeks; lores black; nape black, with two white spots at the tip of the furcated feathers; upper parts pale brown, the feathers with paler edges and dark mesial stripes, especially the scapulars and upper wing-coverts; outermost wing-coverts grey; underparts rich vinous, lighter on the chin and on the abdomen, the lower part of the latter white with a slight buff tinge; under tail-coverts white; quills brown with lighter edges; marginal under wing-coverts grey, the inner ones very dark grey, almost black; three outer tail-feathers black, broadly tipped with white; next pair black, tipped with grey; two central feathers uniform brown, next pair dark brown, with a subterminal broad black band: "iris reddish pearl; bill black; feet pinkish" (*Wallace*). Total length about 11 inches, wing 5·6, tail 5·5, bill 0·7, tarsus 1.

Female. Similar to the male, only slightly smaller.

Young. More rufescent above and beneath; feathers of the hind neck of a pale brown, with greyish edges.

Specimens from Sunda Islands, and especially from Java, Lombock, and Timor, are larger (wing 5·9 inches).

Hab. Burma, Malay Peninsula, Sunda Islands as far south as Timor, and the Moluccas, where most likely it is found only during winter.

a. ♂ ad. sk.	Elephant Point, Dec. (*J. Armstrong*).	Hume Coll.
b. ♂ ad. sk.	Borongho Is., Akyab, March (*J. Armstrong*).	Hume Coll.

c. ♂ ad. sk.	China Bakeer, Dec. (*J. Armstrong*).	Hume Coll.
d. ♂ ad. sk.	Kyouk Phyou, April (*J. Armstrong*).	Hume Coll.
e. ♂ ad. sk.	Deserter's Creek, Jan. (*J. Armstrong*).	Hume Coll.
f, g, h. ♂ ♀ ad. et ♂ juv. sk.	Lower Pegu, Jan. to March.	E. W. Oates, Esq. [C.].
i. ♀ ad. sk.	Thayetmyo, Sept. (*R. G. W. R.*).	Tweeddale Coll.
k. ♂ ad. sk.	Thayetmyo, Aug.	Hume Coll.
l. Ad. sk.	Tonghoo.	Tweeddale Coll.
m. ♂ ad. sk.	Youk-tha-wa, near Tonghoo, Jan. (*R. G. W. R.*).	Tweeddale Coll.
n. Ad. sk.	Yay-tho, June (*R. G. W. R.*).	Tweeddale Coll.
o. Imm. sk.	Pansee, Kachin Hills, March.	Dr. J. Anderson [C.].
p. Ad. sk.	Bhamo, Feb.	Dr. J. Anderson [C.].
q. Ad. sk.	Upper Burmah, Jan.	Dr. J. Anderson [C.].
r. Ad. sk.	Sandu, July.	Dr. J. Anderson [C.].
s. ♀ ad. sk.	Pahpoon, Salween, Jan. (*W. Davison*).	Salvin-Godman Coll.
t, u, v. ♀ ad. sk.	Pahpoon, Salween, Jan., Oct., Dec. (*W. Davison*).	Hume Coll.
w. ♂ ad. sk.	Kollidoo, Jan. (*W. Davison*).	Hume Coll.
x, y, z. ♂ ♀ ad. sk.	Kyouknyat, Jan., Feb. (*W. Davison*).	Hume Coll.
a'. ♂ ad. sk.	Moulmein, Dec. (*W. Davison*).	Hume Coll.
b'. Ad. sk.	Moulmein, Sept. (*R. C. Beavan*).	Tweeddale Coll.
c', d'. ♂ ad. et ♀ juv. sk.	Houngthraw, Feb. (*W. Limborg*).	Tweeddale Coll.
e'–i'. ♂ ♀ ad. sk.	Amherst, Jan., July, Dec. (*W. Davison*).	Hume Coll.
k'. ♀ ad. sk.	Amherst, Jan. (*W. Davison*).	Salvin-Godman Coll.
l'. ♀ ad. sk.	Shymootee, Tavoy, May (*W. Davison*).	Hume Coll.
m'. Ad. sk.	Mouth of Tavoy R., Jan. (*J. Darling*).	Hume Coll.
n', o'. ♀ ad. sk.	Tavoy, April, May (*W. Davison*).	Hume Coll.
p'. ♂ ad. sk.	Weppitan, Dec. (*J. Darling*).	Hume Coll.
q'. ♂ ad. sk.	Mergui, Nov. (*W. Davison*).	Hume Coll.
r', s'. ♂ ♀ ad. sk.	Usheetherrpone, Tenasserim R., Nov. (*W. Davison*).	Hume Coll.
t'. ♀ ad. sk.	Tenasserim Town, Nov. (*W. Davison*).	Hume Coll.
u'–y'. ♂ ♀ ad. sk.	Bankasoon, Feb., May, Dec. (*W. Davison*).	Hume Coll.
z'. Ad. sk.	Saigon, Cochin China.	M. St. Pierre [P.].
a'', b'', c''. ♂ ♀ ad. sk.	Koessoom, May, July (*J. Darling*).	Hume Coll.
d''–g''. ♂ ♀ ad. et imm. sk.	Salang, March (*J. Darling*).	Hume Coll.
h''. ♂ ad. sk.	Taroar, Feb. (*J. Darling*).	Hume Coll.
i''. Ad. sk.	Penang (*Cantor*).	India Museum [P.].
k'', l''. ♂ ♀ ad. sk.	Klang, May, June (*W. Davison*).	Hume Coll.
m'', n'', o''. Ad. et juv. sk.	Malacca (*Cantor*).	India Museum [P.].

p''. ♂ ad. sk.	Malacca.	Wallace Coll.
q'', r''. ♂ ad. sk.	Malacca, Aug. (*R. G. W. R.*).	Tweeddale Coll.
s'', t'', u''. Ad. et juv. sk.	Malacca, July, Aug.	Hume Coll.
v'', w'', x''. ♂ ♀ ad. sk.	Singapore, Sept. (*W. Davison*).	Hume Coll.
y''. ♀ ad. sk.	Acheen, Sumatra, Jan. (*W. Davison*).	Hume Coll.
z''. ♀ ad. sk.	Sidjoendjoeng, Sumatra, Oct. (*Carl Bock*).	Salvin-Godman Coll.
a^3, b^3. ♂ ad. sk.	Sidjoendjoeng, Sumatra, Sept. (*Carl Bock*).	Tweeddale Coll.
c^3. Ad. sk.	Lampong, S.E. Sumatra (*E. C. Buxton*).	Tweeddale Coll.
d^3. Juv. sk.	Billiton.	Tweeddale Coll.
e^3. Ad. sk.	N.W. Borneo.	Hugh Low, Esq. [C.].
f^3. Ad. sk.	Borneo.	Purchased.
g^3. ♂ ad. sk.	Marup, Borneo (*A. Everett*).	Tweeddale Coll.
h^3, i^3. ♂ ad. sk.	Java.	Tweeddale Coll.
k^3. Ad. sk.	W. Java.	Tweeddale Coll.
l^3, m^3. ♂ ad. et imm. sk.	Lombock (*Wallace*).	Gould Coll.
n^3, o^3, p^3. Ad. sk.	Flores.	Wallace Coll.
q^3. Ad. sk.	Flores (*Wallace*).	Seebohm Coll.
r^3. Ad. sk.	Flores (*Wallace*).	Salvin-Godman Coll.
s^3. Ad. sk.	Solor Is.	Wallace Coll.
t^3, u^3, v^3. ♂ ad. et ad. sk.	E. Timor.	Wallace Coll.
w^3. Ad. sk.	Timor.	Wallace Coll.
x^3. Ad. sk.	Celebes.	Tweeddale Coll.
y^3. ♂ ad. sk.	Gorontalo, Celebes, May (*Rosenberg*).	Salvin-Godman Coll.
z^3. Ad. sk.	Makassar, Celebes.	Wallace Coll.
a^4. Ad. sk.	Menado, N. Celebes.	Wallace Coll.
b^4. Ad. sk.	N. Celebes.	Wallace Coll.
c^4. ♂ ad. sk.	Ternate.	Wallace Coll.
d^4. ♀ ad. sk.	Ternate, March (*Bernstein*).	Salvin-Godman Coll.
e^4. Juv. sk.	[Brazil.] (Type of *Columbina inornata*, Gray.)	Gould Coll.
f^4, g^4. Skeletons.		Purchased.

26. Turtur suratensis.

Tourterelle de Surate, *Sonner. Voy. Ind.* ii. p. 179 (1782).

Surate Turtle, *Lath. Syn.* ii. 2, p. 652, n. 46 (1783).

Columba suratensis, *Gm. S. N.* i. p. 778, n. 48 (1788); *Lath. Ind. Orn.* ii. p. 609, n. 55 (1790); *Bonn. Tabl. Enc. Méth.* i. p. 236 (excl. var.) (1790); *Vieill. N. D.* xxvi. p. 382 (1818).

Columba tigrina, part., *Temm. Pig. et Gallin.* i. pp. 317, 481 (1813); *Steph. Gen. Zool.* xi. p. 78 (part.) (1819); *Desm. Dict. Sc. Nat.* xl. p. 347 (part.) (1826); *Frankl. P. Z. S.* 1831, p. 122; *Sykes, P. Z. S.* 1832, p. 150; *Less. Compl. de Buff., Ois.* viii. p. 51 (part.) (1837); *id. op. cit.* 2nd ed. p. 283 (part.) (1838).

Turtur vitticollis, *Hodgs. in Gray's Zool. Misc.* p. 85, n. 96 (1844) (descr. nulla).

Turtur suratensis, *Strickl. P. Z. S.* 1842, p. 168; *Blyth, J. A. S. B.* xiv. 2, p. 874 (part.) (1845); *id. Ann. & Mag. Nat. Hist.* xix.

p. 184 (part.) (1847); *id. Cat. B. Mus. A. S. B.* p. 236, n. 1435 (1849); *Kelaart, Prodr. Cat.* p. 130 (1852); *Layard, Ann. & Mag. N. H.* (2) xiv. p. 60 (1854); *Bp. Consp. Av.* ii. p. 63 (part.) (1854); *id. Compt. Rend.* xl. p. 17 (part.), p. 219, n. 184 (1855); *id. Coup d'œil Ordre Pig.* pp. 31, 57, n. 184 (1855); *Blyth, J. A. S. B.* xxiv. p. 263 (note) (1855); *Adams, P. Z. S.* 1858, p. 498 (Deccan and Lower Himalayan Ranges); *Rchnb. Tauben*, i. p. 72, t. 246. f. 1363, t. 253 *b.* ff. 3373–74 (1862), ii. p. 174 (1862); *Jerd. B. of Ind.* iii. p. 479 (1864); *Beav. P. Z. S.* 1865, p. 691; *Pelz. Novar. Reis., Vög.* p. 108 (1865); *Wall. Ibis*, 1865, p. 391; *id. J. f. O.* 1866, p. 283; *Blyth, Ibis*, 1867, p. 150; *Tytler, Ibis*, 1868, p. 203; *Pelz. Ibis*, 1868, p. 320; *Beav. Ibis*, 1868, p. 376; *Hume, Ibis*, 1869, p. 19; *Bulger, Ibis*, 1869, p. 169; *G. R. Gr. Handlist*, ii. p. 238, n. 9315 (1870); *Holdsw. P. Z. S.* 1872, p. 467; *Lloyd, Ibis*, 1873, p. 414; *Schleg. Mus. P.-B.* Columbæ, p. 129 (1873); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 16 (1873); *Adam, Str. Feath.* i. p. 390 (1873); *Ball, Str. Feath.* ii. p. 425 (1874); *Legge, Ibis*, 1874, p. 26, 1875, p. 275; *Rey, J. f. O.* 1875, p. 291 (egg); *Hume, Nests & Eggs*, p. 504 (1875); *Butl. & Hume, Str. Feath.* iv. p. 3 (1876); *Fairb. Str. Feath.* iv. p. 262 (1876), v. p. 409 (1877); *Gieb. Thes. Orn.* iii. p. 728 (1877); *Ball, Str. Feath.* vii. p. 224 (1878); *Cripps, Str. Feath.* vii. p. 297 (1878); *Hume, Str. Feath.* viii. p. 110 (1879); *Legge, B. of Ceyl.* p. 705 (1880); *Bidd. Ibis*, 1881, p. 92 (Gilgit); *Scully, Ibis*, 1881, p. 585 (Gilgit); *Bidd. Ibis*, 1882, p. 286; *Salv. Cat. B. Strickl. Coll.* p. 545 (1882); *Müll. J. f. O.* 1882, p. 432; *Sclat. List Vert. An.* 8th ed. p. 452 (1883); *Park. Ibis*, 1883, p. 194 (Ceylon); *Marsh. Ibis*, 1884, p. 421 (Chamba); *Swinh. & Barn. Ibis*, 1885, p. 130; *Hume, Str. Feath.* xi. p. 298 (1888); *Hartert, J. f. O.* 1889, p. 433 (Assam); *Tristr. Cat. Coll. B.* p. 39 (1889); *Oates's ed. Hume, Nests & Eggs Ind. B.* ii. p. 353 (1890); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 277 (1890); *Hartert, Kat. Vogelsamml.* p. 188 (1891); *Sharpe, Sc. Res. Sec. Yark. Miss., Aves*, p. 119 (1891).

Turtur chinensis, part., *G. R. Gr. List Gallinæ B. M.* p. 13 (1844); *id. Gen. B.* ii. p. 472, n. 9 (1844); *id. List B. Brit. Mus.* Columbæ, p. 42 (part.) (1856).

Turtur ceylonensis, *Rchnb. Syn. Av.* Columbariæ, *Novit.* t. 253 *b.* ff. 3373–74 (1851); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 43 (1856).

? Turtur chinensis, juv., *Bp. Consp. Av.* ii. p. 63 (1854).

Spilopelia suratensis, *Sunder. Meth. nat. Av. Tent.* p. 100 (1872).

Turtur ceylanensis, *Schleg. Mus. P.-B.* Columbæ, p. 129 (1873).

Adult. Head pale vinaceous, greyish on the forehead; feathers of the nape and sides of the neck bifurcated, black, each with two whitish spots; upper parts brown, each feather of the upper back and scapulars with two pale vinous isabelline terminal spots, enlarging and spreading upon each side of the feather, upon the wing-coverts, the blackish contracting to a central streak; sides of the lower back and rump tinged with lead-colour; lower parts vinous, albescent on the throat, and passing into white on the vent and under tail-coverts; edge of the wing, with the anterior wing-coverts, grey; quills brown, the secondaries with a greyish tinge on the outer web; marginal under wing-coverts grey, the inner ones almost black; tail with the two central pairs of feathers brown, the next

pair greyish brown, the third and fourth pairs grey, with a blackish band about the middle and whitish tips; the outer two pairs black, with the apical half white, tinged with grey on the fifth pair: "bill dull leaden black; irides dark hazel, surrounded by a reddish ring (?); legs dark purplish red" (*Jerdon*). Total length about 11 inches, wing 5·5, tail 5·5, bill 0·55, tarsus 0·9.

Female. Somewhat smaller.

Young. Duller and paler; no black and no white spots on the hind neck; the spots of the back and upper wing-coverts rufescent, with no vinous tinge.

The Ceylon bird is somewhat smaller than the Indian one (wing about 5 inches), but otherwise is not different.

Hab. Yarkand, Afghanistan, Cashmere, through the Himalayas to Assam and Munipur, the whole of India, and Ceylon.

a. Ad. sk.	Leh, Yarkand, Sept. (*F. Stoliczka*).	India Museum [P.].
b, c. Ad. sk.	Afghanistan (*Griffiths*).	India Museum [P.].
d. Ad. sk.	Pushut (*Griffiths*).	India Museum [P.].
e. Ad. sk.	Murree.	Colonel Way [P.].
f. ♂ ad. sk.	Agrore, April (*W. H. Unwin*).	Hume Coll.
g. Juv. sk.	Boonji, 4500 feet, Oct.	J. Biddulph, Esq. [C.].
h. Ad. sk.	Gilgit, Feb. (*J. Biddulph*).	Hume Coll.
i. ♂ ad. sk.	Gilgit, March.	J. Biddulph, Esq. [C.].
k. Ad. sk.	Koteghur.	Hume Coll.
l–p. ♂ ♀ ad. sk.	Simla, Sept., Oct. (*W. Davison*).	Hume Coll.
q. Ad. sk.	Simla, July (*R. C. Beavan*).	Tweeddale Coll.
r, s. ♂ ad. et juv. sk.	Umballah, Nov. (*R. C. Beavan*).	Tweeddale Coll.
t. Ad. sk.	Kaladoongee.	Hume Coll.
u. ♀ ad. sk.	Almorah, Aug.	Hume Coll.
v. Ad. sk.	Kumaon (*Strachey*).	India Museum [P.].
w. Ad. sk.	Deo Dhoura, Oct.	Hume Coll.
x. ♂ ad. sk.	Gurgaon District, Feb. (*W. N. Chill*).	Hume Coll.
y. ♀ ad. sk.	Gurgaon District, Dec. (*W. N. Chill*).	Salvin-Godman Coll.
z. ♀ ad. sk.	Delhi, March (*C. T. Bingham*).	Hume Coll.
a', b'. ♂ ♀ ad. sk.	Sambhur, July (*R. M. Adam*).	Hume Coll.
c', d'. Ad. sk.	Oudh.	Capt. Stackhouse Pinwill [P.].
e'. Ad. sk.	Oudh.	Hume Coll.
f'. ♂ ad. sk.	Futtehgurh, Aug. (*A. Anderson*).	Seebohm Coll.
g'–m'. Ad. et juv. sk.	Nepal.	B. H. Hodgson, Esq. [P.].
n'–r'. Ad. sk.	Nepal (*B. H. Hodgson*).	India Museum [P.].

(Types of *T. vitticollis*, Hodgs.)

s', *t'*. ♂ ad. et ♀ juv. sk.	Nepal Valley, April, July (*J. Scully*).	H. Seebohm, Esq. [P.].
u'. ♀ ad. sk.	Nepal Valley, Feb. (*J. Scully*).	Hume Coll.
v'. ♀ ad. sk.	Katmandu, March (*J. Scully*).	Hume Coll.
w'. Ad. sk.	Native Sikhim, April (*L. Mandelli*).	Hume Coll.
x', *y'*. Ad. sk.	Sikhim (*L. Mandelli*).	Seebohm Coll.
z'–*e''*. ♂ ad. et juv. sk.	Sikhim, April, Sept.–Nov. (*L. Mandelli*).	Hume Coll.
f''. Ad. sk.	Darjeeling.	Hume Coll.
g'', *h''*. Ad. sk.	Bootan (*Monteiro*).	Indian Museum [P.].
i''. Ad. sk.	Bhotan Doars, Feb. (*L. Mandelli*).	Hume Coll.
k'', *l''*. Ad. sk.	Assam (*McClelland*).	India Museum.
m''. ♀ ad. sk.	Dollah, Assam, May (*J. Cockburn*).	Hume Coll.
n''. Ad. sk.	Tippook, nr. Suddya, Assam, April (*J. Cockburn*).	Hume Coll.
o'', *p''*. ♂ ♀ ad. sk.	Dibrughur, March, July (*J. R. Cripps*).	Hume Coll.
q''. ♂ ad. sk.	N. Khasia Hills, Feb. (*A. W. Chennell*).	Tweeddale Coll.
r''. ♀ ad. sk.	Base of Khasia Hills, Feb. (*A. W. Chennell*).	Tweeddale Coll.
s'', *t''*. ♂ ♀ ad. sk.	Cachar, Jan., April (*A. O. H. & J. Inglis*).	Hume Coll.
u'', *v''*, *w''* ♂ ♀ ad. sk.	Sylhet, Jan. (*A. O. H.*).	Hume Coll.
x'' ♀ ad. sk.	Munipur, May (*A. O. H.*).	Hume Coll.
y''. Ad. sk.	Dacca.	Hume Coll.
z''. ♂ ad. sk.	Calcutta, Aug.	Hume Coll.
a^1. ♂ ad. sk.	Raipur, Jan.	Hume Coll.
b^1, *c*^{1}. ♀ ad. sk.	Saugor, Jan.	Hume Coll.
d^1, *e*^{1}. Ad. sk.	Kamptee.	Dr. R. B. Hinde [P.].
f^1, *g*^{1}. ♂ ad. sk.	Mhow, Oct.	Col. Swinhoe [P.].
h^1. Ad. sk.	Khandeish.	Tweeddale Coll.
i^1, *k*^{1}. ♂ ♀ ad sk.	Khandeish, April, Dec. (*J. Davidson*).	Hume Coll.
l^1. ♀ ad. sk.	Nandurbar, Dec. (*J. Davidson*).	Hume Coll.
m^1, *n*^{1}. ♂ ♀ ad. sk.	Mahableshwar, April, May (*J. B. Fairbank*).	Tweeddale Coll.
o^1. ♀ ad. sk.	Ahmednugger, July (*S. B. Fairbank*).	Tweeddale Coll.
p^1. ♂ ad. sk.	Khandala, March (*S. B. Fairbank*).	Tweeddale Coll.
q^1. Ad. sk.	Deccan (*Sykes*).	India Museum [P.].
r^1. Imm. sk.	Madras.	India Museum [P.].
s^1, *t*^{1}. Ad. sk.	Madras.	Rev. H. H. Baber [P.].
u^1. ♂ ad. sk.	Mysore, April (*R. G. W. R.*).	Tweeddale Coll.
v^1. ♀ ad. sk.	Ootacamund, Nilghiris, Aug. (*R. G. W. R.*).	Tweeddale Coll.
x^1. ♂ ad. sk.	Coonoor, Oct. (*W. Davison*).	Salvin-Godman Coll.

y^3. ♀ ad. sk.	Coonoor, March (*F. Day*).	Hume Coll.
z^3, a^4. Ad. et ♀ juv. sk.	Coonoor Ghât, April (*R. G. W. R.*)	Tweeddale Coll.
b^4. ♂ ad. sk.	Burliar Bridge, Sept.	Hume Coll.
c^4. ♀ ad. sk.	Vurralee, Aug.	Hume Coll.
d^4. ♂ ad. sk.	Lower Palani Hills, June (*S. B. Fairbank*).	Hume Coll.
e^4. Ad. sk.	Malabar Coast.	Tweeddale Coll.
f^4. Ad. sk.	Malabar Coast.	Salvin-Godman Coll.
g^4. Ad. sk.	Travancore, June.	Hume Coll.
h^4. Ad. sk.	Anjango, Travancore, Dec.	Hume Coll.
i^4. Ad. sk.	Ceylon.	Cuming Coll.
k^4, l^4. Ad. sk.	Ceylon (*H. Nevill*).	Tweeddale Coll.
m^4, n^4. Ad. sk.	Near Newara Ellia.	Mr. E. Boate [C.].
o^4. Ad. sk.	Kandy, Ceylon (*A. Whyte*).	Salvin-Godman Coll.
p^4. ♂ ad. sk.	Villadoora, Ceylon, April (*S. Chapman*).	Tweeddale Coll.
q^4. Ad. sk.	Dambokke, Ceylon, July.	Tweeddale Coll.

e. Stigmatopelia.

	Type.
Stigmatopelia, *Sund. Meth. nat. Av. disp. Tent.* p. 100 (1872)	T. senegalensis.

Range. Africa, Turkey, and Western Asia as far east as Central India.

Key to the Species.

a. Upper parts more or less reddish; rump bluish-lead colour ..... *senegalensis*, p. 448.

b. Upper parts pale earthy brown; rump never bluish, but uniform with the back ..... *cambaiensis*, p. 451.

27. Turtur senegalensis.

Turtur gutture maculato senegalensis, *Briss. Orn.* i. p. 135, pl. viii. f. 3 (1760).

Columba senegalensis, *Linn. S. N.* i. p. 283, n. 26 (1766) (*ex Brisson*); *Gm. S. N.* i. p. 782, n. 26 (1788); *Lath. Ind. Orn.* ii. p. 610, n. 62 (1790); *Bonn. Tabl. Enc. Méth.* i. p. 249 (1790); *Less. Tr. d'Orn.* p. 473 (1831); *Bolle, J. f. O.* 1857, p. 332 (Fuerteventura, Canaries); *Sundev. K. Sv. Vet.-Ak. Handl.* 1857, p. 54.

Tourterelle à gorge tachetée du Sénégal, *Buff. Hist. Nat. Ois.* ii. p. 552 (1771).

Columba testaceo-incarnata, *Forsk. Icon. rer. nat. Av.* p. 5, n. 15 (1776).

Senegal Turtle, *Lath. Syn.* ii. 2, p. 655, n. 53 (1783); *Bechst. Lath. Uebers.* ii. p. 630.

Columba turtur, var. ϵ (part.), *Gm. S. N.* i. p. 786 (1788).

Columba ægyptiaca, *Lath. Ind. Orn.* ii. p. 607, n. 49 (1790) (*ex Forskal*); *Bonn. Tabl. Enc. Méth.* p. 257 (1790); *Temm. Pig. et Gallin.* i. p. 461 (1813); *Vieill. N. D.* xxvi. p. 350 (1818); *Steph. Gen. Zool.* xi. p. 8 (1819); *Desm. Dict. Sc. Nat.* xl. p. 372 (1826);

? *v. d. Mühle, Beitr. Orn. Griechenl.* p. 83 (1844); *Schleg. Rev. Crit.* pp. lxxiv, 88 (part.) (1844); *Des Murs in Lefebvre's Voy. Abyss.* p. 146 (1845); ? *Linderm. Vög. Griechenl.* p. 121 (1860); *Schleg. Vog. van Nederl.* p. 369 (1863); *Krüp. & Hartl. Griech. Jahresb.* Heft iii. p. 259 (1875) (Greece).

Egyptian Pigeon, *Lath. Syn. Suppl.* ii. p. 276, sp. 3 (1802).

Tourterelle maillée, *Levaill. Ois. d'Afr.* vi. p. 82, pl. 270 (1808).

Columba cambayensis, *Knip & Temm. Pig.* i. fam. seconde, p. 100 (part.), pl. 45 (1808–11); *Savigny, Descr. de l'Egypte*, pl. 5. f. 9 (1810); *Bechst. Lath. Uebers.* iv. p. 385 (part.) (1811); *Temm. Pig. et Gallin.* i. pp. 329, 482 (part.) (1813); *Vieill. N. D.* xxv. p. 381 (part) (1818); *Steph. Gen. Zool.* xi. p. 79 (1819); *Desm. Dict. Sc. Nat.* xl. p. 351 (1826); *Rüpp. Neue Wirbelth., Vög.* p. 67 (1835) (Nile, Abyssinia); *Chapm. Trav. S. Afr.* ii. p. 411 (1868) (Damara).

Colombe égyptienne, *Temm. Pig. et Gallin.* i. p. 370 (1813).

Columba maculicollis, *Wagl. Syst. Av.* Columba, sp. 97 (part.) (1827).

? Columba afra, *Webb & Berth. Orn. Canar.* p. 28 (1840); *Koenig, J. f. O.* 1890, p. 312.

Turtur senegalensis, *Bp. Ucc. Eur.* p. 52 (1842); *G. R. Gr. List Gallinæ Brit. Mus.* p. 13 (1844); *id. Gen. B.* ii. p. 472, n. 8 (1844); *Rüpp. Syst. Uebers.* p. 100 (1845); *Blyth, J. A. S. B.* xiv. p. 873 (part.) (1845); *id. Ann. & Mag. N. H.* xix. p. 183 (part.) (1847); *Rchnb. Syn. Av.* ff. 1375–76 (1847); *Hartl. J. f. O.* 1854, p. 207; *Bp. Consp. Av.* ii. p. 62 (1854); *id. Compt. Rend.* xl. pp. 17, 219, n. 181 (1855); *id. Coup d'œil Ordre Pig.* pp. 30, 57, n. 181 (1855); *Heugl. Syst. Uebers.* n. 515 (1855); *id. Peterm. Mittheil.* 1861, p. 26; *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 43 (part.) (1856); *Hartl. Orn. W.-Afr.* p. 195 (1857); *Tayl. Ibis*, 1859, p. 50 (Egypt); *Heugl. Ibis*, 1859, p. 343 (Cosseir, Sawakim); *Hartl. J. f. O.* 1861, p. 206; *Rchnb. Tauben*, i. p. 71, t. 248. ff. 1375–76 (1862), ii. p. 174 (1862); *Hartm. J. f. O.* 1863, p. 468; *Antin. Cat. Descr. Ucc.* p. 91 (1864); *Adams, Ibis*, 1864, p. 27 (Egypt, Nubia); *id. J. f. O.* 1864, p. 451; *Allen, Ibis*, 1864, p. 239; *Kirk, Ibis*, 1864, p. 330 (Zambesi); *Tristr. P. Z. S.* 1864, p. 448 (Palestine); *Tayl. Ibis*, 1867, p. 67; *Layard, B. S. Afr.* p. 261 (1867); *Degl. & Gerbe, Orn. Eur.* ii. p. 16 (1867); *Gurn. Ibis*, 1868, p. 47 (Natal); *Tristr. Ibis*, 1868, p. 210 (Palestine); *Sclat. P. Z. S.* 1869, p. 627; *G. R. Gr. Hand-list*, ii. p. 238, n. 9317 (1870); *Finsch & Hartl. Vög. Ostafr.* p. 551 (1870); *Finsch & Jesse, Tr. Zool. Soc.* vii. p. 290 (1870); *Blanf. Geol. & Zool. Abyss.* p. 411 (1870); *Tacz. J. f. O.* 1870, p. 51 (Constantine); *Heugl. Orn. N.O.-Afr.* i. 2, p. 841 (1871); *Ayres, Ibis*, 1871, p. 261 (Transvaal); *Gurn. in Anders. B. Damara-Land* p. 232 (1872); *Sharpe, Ibis*, 1872, p. 73 (Fantee); *Shell. & Buckl. Ibis*, 1872, p. 290 (Gold Coast); *Rchnw. J. f. O.* 1872, p. 391, 1873, p. 213 (Accra); *Schleg. Mus. P.-B.* Columbæ, p. 119 (1873); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 16 (1873); *Antin. & Salvad. Viaggio Bogos*, p. 131 (1873) (Keren); *Garr. P. Z. S.* 1873, pp. 468, 639; *Rchnw. J. f. O.* 1874, p. 388 (Accra); *Ussher, Ibis*, 1874, p. 71 (Gold Coast); *Dress. Ibis*, 1876, p. 222; *id. B. Eur.* vii. p. 55 (part.), pl. 465 (1876); *Gieb. Thes. Orn.* iii. p. 728 (1877); *Ayres, Ibis*, 1877, p. 346 (Transvaal); *Cab. J. f. O.* 1878, p. 243 (E. Africa); *Fisch. & Rchnw. J. f. O.* 1878, pp. 250, 292 (Mombas); *Ayres, Ibis*, 1881, p. 109; *Bocage, Orn. Angola*, p. 388 (1881); *Sclat. &*

Hartl. P. Z. S. 1881, p. 173 (Socotra); *Hartl. tom. cit.* p. 956 (Socotra); *Shell. Ibis*, 1882, p. 359 (Mashoona); *Salv. Cat. B. Strickl. Coll.* p. 545 (1882); *Butl., Feild., & Reid, Zoologist*, 1883, p. 388 (Natal); *Shell. Ibis*, 1883, p. 315; *Forbes, Ibis*, 1883, pp. 508, 515, 518; *Shell. Ibis*, 1883, p. 560; *Salvad. Ann. Mus. Civ. Gen.* (2) i. p. 208 (1884); *Sclat. List Vert. An.* 8th ed. p. 453 (1883); *Fischer, Zeitschr. ges. Orn.* 1884, p. 377 (Massaïland); *Swinh. & Barn. Ibis*, 1885, p. 130; *Fisch. J. f. O.* 1885, p. 118 (E. Afr.); *Hartert, J. f. O.* 1886, p. 604 (Niger); *Rchnw. J. f. O.* 1887, p. 51; *Koenig, J. f. O.* 1888, pp. 131, 250, 253; *Salvad. Ann. Mus. Civ. Gen.* (2) vi. p. 304 (1888); *Koenig, J. f. O.* 1890, p. 312; *Brisay, Bull. Soc. Acclim.* 1889, p. 57; *Tristr. Cat. Coll. B.* pp. 38, 39 (1889); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 277 (1890); *Tayl. Ibis*, 1891, p. 474; *Hartert, Kat. Vogelsamml.* p. 188 (1891); *Rchnw. J. f. O.* 1891, p. 143.

Turtur ægyptiacus, *Bp. Rev. Crit. Orn. Eur.* p. 173 (1850); *Heugl. Syst. Uebers.* p. 514 (1855); *Brehm, J. f. O.* 1856, p. 396; *Homey. J. f. O.* 1859, p. 361; *Tristr. Ibis*, 1859, p. 35 (Palestine); *Salv. Ibis*, 1859, p. 318 (E. Atlas); *Heugl. Ibis*, 1859, p. 343; *Tristr. Ibis*, 1860, p. 69 (N. Africa); *Heugl. J. f. O.* 1861, p. 197; *Hartm. J. f. O.* 1863, pp. 232, 308, 309; *Heugl. J. f. O.* 1864, p. 264; *Blyth, Ibis*, 1867, p. 150; *Shell. Ibis*, 1871, p. 143 (Egypt); *Gurn. Ibis*, 1871, pp. 69, 295 (Algeria).

Peristera senegalensis, *C. L. Brehm, Vogelf.* p. 257 (1855).

Peristera rufescens, *C. L. Brehm, Vogelf.* p. 257 (1855).

Peristera ægyptiaca, *C. L. Brehm, Vogelf.* p. 257 (1855).

? Peristera pygmæa, *C. L. Brehm, Nat. u. Zucht d. Taub.* p. 56 (1857).

Turtur savignyii, *Rchnb. Tauben*, i. p. 72 (1862).

Turtur rufescens, *Rchnb. Tauben*, ii. p. 173 (1862).

? Turtur pygmæus, *Rchnb. Tauben*, ii. p. 173 (1862).

Stigmatopelia senegalensis, *Sundev. Meth. nat. Av. disp. Tent.* p. 100 (1872).

Turtur ægyptiaca, *Cab. J. f. O.* 1878, p. 243 (Northern Africa).

Adult male. Head, neck, and breast rich vinous, slightly paler on the chin and centre of the upper throat, and fading into white on the abdomen; vent and under tail-coverts white; a broad collar round the front and sides of the neck formed of black bifid feathers, broadly tipped with rusty colour; back and scapulars rusty vinous, with a greyish tinge; lower back, rump, upper wing-coverts, and secondaries lead-grey; upper tail-coverts greyish brown; some of the inner wing-coverts and tertials tinged with rusty colour; bastard-wing and primary-coverts black; primaries black, with narrow light edges, the inner ones tinged with grey; under wing-coverts, axillaries, and flanks grey; central tail-feathers brown-grey, the next two pairs leaden grey, the remainder slate-black at the base, then grey fading into white towards the end, the white increasing towards the outer feathers, which are edged with white on the outer web; tail below black at the base, white at the apical half; "iris orange-red; bill dusky black, with a slight vinous shade; legs pinkish red" (*Shelley*). Total length about 11 inches, wing 5·5, tail 4·8, bill 0·55, tarsus 0·8.

Female. Somewhat smaller and duller in colouring.

Hab. The whole of the African continent, Socotra, the Canary Islands, and Palestine*; accidental in Greece?

a. Ad. sk.	Senegal.	L. Laglaize [C.].
b. Ad. st.	Dakar, Senegambia (*L. Laglaize*).	Tweeddale Coll.
c, d. Ad. sk.	Accra (*Ussher*).	Shelley Coll.
e. Ad. sk.	Accra, Feb. (*Buckley*).	Shelley Coll.
f. Ad. sk.	Niger (*W. A. Forbes*).	Shelley Coll.
g. Ad. sk.	Tschaddah, Niger.	Dr. Balfour Baikie [P.].
h. Ad. sk.	Cape of Good Hope.	Shelley Coll.
i. Ad. sk.	Kingwilliamstown.	Capt. Trevelyan [P.].
k. Ad. sk.	Weenen, Natal, April.	Salvin-Godman Coll.
l. Ad. sk.	Colenso, Nov.	Capt. S. Reid Coll.
m–p. ♂ ad. et ad. sk.	Zulu-land (*Gordge*).	Shelley Coll.
q. Juv. sk.	Rustenburg.	F. A. Barratt, Esq. [P.].
r. Ad. sk.	Rustenburg, Oct. (*T. Ayres*).	Gurney Coll.
s. Ad. sk.	Zambesi (*Kirk*).	Tweeddale Coll.
t. Ad. sk.	Zambesi (*Meller*).	Shelley Coll.
u, v, w. Ad. et juv. sk.	Tette.	Dr. Livingstone's Expedition.
x, y. ♂ ♀ ad. sk.	Socotra, Feb., March.	Prof. Balfour [C.].
z–c'. ♂ ♀ ad. et ♀ juv. sk.	Socotra, Feb., March (*Balfour*).	Shelley Coll.
d'. ♂ ad. sk.	Koomayli, Abyssinia, June (*Jesse*).	Tweeddale Coll.
e'. ♂ ad. sk.	Dolo, Tigre, Abyssinia, March.	W. T. Blanford, Esq. [C.].
f'. ♀ ad. sk.	Ailat, Samhar, Abyssinia, June.	W. T. Blanford, Esq. [C.].
g'–k'. ♂ ♀ ad. sk.	Egypt, March, April (*G. E. S.*).	Shelley Coll.
l'. ♀ ad. sk.	Phakta, Egypt, Dec. (*Stafford Allen*).	Tweeddale Coll.
m'. Ad. sk.	Palestine, Jan. (*H. B. Tristram*).	Tweeddale Coll.
n'. Ad. sk.	Palestine, Jan. (*H. B. Tristram*).	Salvin-Godman Coll.
o'. ♀ ad. sk.	Palestine, Jan. (*H. B. Tristram*).	Seebohm Coll.
p', q'. ♂ ♀ ad. sk.	Jericho.	Canon Tristram [P.].

28. Turtur cambayensis.

Tourterelle grise de Surate, *Sonner. Voy. Ind.* ii. p. 180 (1782); *Bonn. Tabl. Enc. Méth.* i. p. 236 (1790).
Cambayan Turtle, *Lath. Syn.* ii. 2, p. 652, n. 47 (1783).
Columba cambayensis, *Gm. S. N.* i. 2, p. 779, n. 49 (1788) (*ex*

* While specimens from Constantinople in Dresser's Collection are indistinguishable from the Indian ones of *T. cambayensis*, those from Palestine and Egypt in the British Museum are intermediate between *T. cambayensis* and typical *T. senegalensis*. According to Cabanis (J. f. O. 1878, p. 245) the N. African birds belong to a larger, distinct race (*T. aegyptiacus*).

Latham); *Lath. Ind. Orn.* ii. p. 609, n. 56 (1790); *Knip & Temm. Pig.* i. fam. seconde, p. 100 (part.) (1808–11); *Temm. Pig. et Gallin.* i. pp. 229, 482 (part.) (1813); *Vieill. N. D.* xxv. p. 381 (part.) (1818); *Steph. Gen. Zool.* xi. p. 79 (part.) (1819); *Desm. Diet. Sc. Nat.* xl. p. 351 (part.) (1826); *Frankl. P. Z. S.* 1831, p. 122; *Sykes, P. Z. S.* 1832, p. 150; *Strickl. P. Z. S.* 1836, p. 100 (Smyrna and Constantinople).

Columba maculicollis, part., *Wagl. Syst. Av.* Columba, sp. 97 (1827).

Peristera cambayensis, *Boie, Isis*, 1828, p. 327.

Columba ægyptiaca, part., *Schleg. Rev. Crit.* pp. lxxiv, 88 (part.) (1844).

Turtur senegalensis, *Blyth, J. A. S. B.* xiv. p. 873 (part.) (1845); *id. Ann. & Mag. N. H.* xix. p. 183 (1847); *id. Cat. B. Mus. A. S. B.* p. 237, n. 1438 (1849); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 43 (part.) (1856); *Adams, P. Z. S.* 1858, p. 498 (Deccan, Scinde, Punjab); *Irby, Ibis*, 1861, p. 234 (India); *Jerd. B. of Ind.* iii. p. 479 (1864); *Sclat. & Tayl. Ibis*, 1876, p. 62 (Constantinople); *Blanf. East. Pers.* ii. p. 276 (1876); *Davis. & Wend. Str. Feath.* vii. p. 86 (Deccan) (1878); *Hume, Str. Feath.* viii. p. 66 (1878), p. 463 (1879), viii. p. 110 (1879); *St. John, Ibis*, 1880, p. 145 (Afghanistan); *Sharpe, Ibis*, 1886, p. 166 (Muscat); *id. Sc. Res. Sec. Yark. Miss., Aves*, p. 118 (1891).

Turtur cambayensis, *Bp. Consp. Av.* ii. p. 62 (1854); *id. Compt. Rend.* xl. pp. 16, 219, n. 182 (1855); *id. Coup d'œil Ordr. Pig.* pp. 30, 57, n. 182 (1855); *Burgess, P. Z. S.* 1855, p. 34; *Hartl. Orn. W.-Afr.* p. 195 (1857); *Rchnb. Tauben*, i. p. 72 (1862); *Beav. P. Z. S.* 1864, p. 376; *Jerd. B. of Ind.* iii. p. 478 (1864); *Blyth, Ibis*, 1867, p. 150; *Pelz. Ibis*, 1868, p. 320; *id. J. f. O.* 1868, p. 36; *Hume, Ibis*, 1869, pp. 19, 145; *Brooks, Ibis*, 1869, p. 60; *G. R. Gr. Hand-list*, ii. p. 238, n. 8318 (1870); *Schleg. Mus. P.-B.* Columbæ, p. 120 (1873); *Lloyd, Ibis*, 1873, p. 415 (Kattiawar); *Rey, J. f. O.* 1875, p. 291 (egg); *Gieb. Thes. Orn.* iii. p. 725 (1877); *Ball, Str. Feath.* vii. p. 224 (1878); *Cab. J. f. O.* 1878, p. 243 (Asia and S. Europe); *Bidd. Ibis*, 1881, p. 92 (Gilgit); *Scully, Ibis*, 1881, p. 585 (Gilgit); *C. Swinh. Ibis*, 1882, p. 117 (Afghanistan); *Bidd. Ibis*, 1882, p. 286 (Gilgit); *Salv. Cat. B. Strickl. Coll.* p. 545 (1882); *Pleske, Mém. Ac. St. Pétersb.* (7) xxxvi. n. 3, p. 46 (Turkestan) (1888); *St. John, Ibis*, 1889, p. 174 (Afghanistan); *Tristr. Cat. Coll. B.* p. 38 (1889); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 277 (1890); *Sharpe, Ibis*, 1891, p. 111 (Fao).

Stigmatopelia cambayensis, *Sunder. Meth. nat. Av. Tent.* p. 100 (1872).

? Columba ægyptiaca, *Severtz.* (*nec Lath.*) *Turkest. Jevotn.* p. 68 (1873).

Streptopelia ægyptiaca, *Severtz. J. f. O.* 1875, p. 180.

Similar to *T. senegalensis*, but with the upper parts never with a reddish tinge, but of a more uniform pale earthy brown; the rump never pure bluish, as in *T. senegalensis*, but pale earthy brown, like the back, more or less blue on the sides. Size about the same as that of *T. senegalensis*.

Hab. From Constantinople, where probably it has been introduced, and Asia Minor, to Turkestan and Central India *.

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* Turtur ermanni.

? Columba ægyptiaca, *Licht. in Eversm. Reise nach Buchara*, p. 133 (1823) (Buchara).

a. ♂ ad. sk.	Aintab, Asia Minor (*C. G. Danford*).	Seebohm Coll.
b. Ad. sk.	Fao, Persian Gulf, Jan.	W. D. Cumming, Esq. [P.].
c, *d*. Ad. sk.	Muscat.	Col. Miles [P.].
e. Ad. sk.	Turkestan, Aug. (*Severtzoff*).	Tweeddale Coll.
f, *g*. ♂ ♀ ad. sk.	Turkestan, March (*Russow*).	Seebohm Coll.
h, *i*, *k*. ♂ ♀ ad. sk.	Shikarpore (*Griffiths*).	India Museum [P.].
l, *m*. ♂ ♀ ad. sk.	Kandahar, March.	Col. Swinhoe [P.].
n. ♂ ad. sk.	Kandahar, March.	Hume Coll.
o. Imm. sk.	Chakmár, Jan. (*Stoliczka*).	India Museum [P.].
p. ♀ ad. sk.	Beluchistan, Feb.	W. T. Blanford, Esq. [E.].
q. Ad. sk.	Kach, N. Beluchistan, April.	Col. Swinhoe [P.].
r, *s*. Ad. sk.	Nal, May (*O. T. Duke*).	Hume Coll.
t. ♀ ad. sk.	Nr. Larkhana, Feb. (*A. O. H.*).	Hume Coll.
u. ♀ ad. sk.	Sukkur, Scinde, Dec. (*A. O. H.*).	Hume Coll.
v–*y*. ♂ ♀ ad. et ♂ ad. [var.] sk.	Sambhur, Feb., May, June (*R. M. Adam*).	Hume Coll.
z. ♀ ad. sk.	Sambhur, May (*R. M. Adam*).	Tweeddale Coll.
a'. ♂ ad. sk.	Umballah, Nov. (*R. C. Beavan*).	Tweeddale Coll.
b'. Ad. sk.	Kumaon (*Strachey*).	India Museum.
c', *d'*. ♂ ♀ ad. sk.	Almorah, May, Aug.	Hume Coll.
e', *f'*. Ad. sk.	Etawah.	Hume Coll.
g'. ♂ ad. sk.	Oudh, Nov.	Hume Coll.
h'. ♀ ad. sk.	Mogul Serai, Jan.	Hume Coll.
i'. Juv. sk. [albino].	Saugor.	Hume Coll.
k', *l'*. Ad. sk.	Kamptee.	Dr. R. B. Hinde [P.].
m'. ♀ ad. sk. [var.].	Khandeish, Aug. (*J. Davidson*).	Hume Coll.
n'. ♂ ad. sk.	Maunbhoom, Dec. (*R. C. Beavan*).	Tweeddale Coll.
o'. Ad. sk.	Deccan (*Sykes*).	India Museum [P.].
p', *q'*. ♂ ♀ ad. sk.	Wadale, July (*S. B. Fairbank*).	Tweeddale Coll.
r'. ♀ ad. sk.	Ahmednugger, Dec. (*S. B. Fairbank*).	Tweeddale Coll.
s'. ♂ ad. sk.	Mysore, Aug. (*R. G. W. R.*).	Tweeddale Coll.

Turtur cambayensis, *ex Boukara*, *Mus. Berol.*, *fide Bp.*
Turtur ermanni, *Bp. Compt. Rend.* xliii. pp. 942, 949 (1856) (Boukara); *G. R. Gr. Hand-list*, ii. p. 238, n. 9323 (1870).
? Columba ægyptiaca, *Severtz. Turkest. Jevotn.* p. 68 (1873).
? Turtur senegalensis, *Dress. Ibis*, 1876, p. 322.

Smaller than *T. cambayensis*; tail shorter; general plumage of a uniform muddy isabelline colour, even the wings have no rufous tinge; scarcely a trace of markings on the breast; head slightly tinged with lilac. (*Translation.*)
Hab. Boukara.
I have not seen specimens from Boukara, but from the fact that the bird obtained in Turkestan cannot be separated, although somewhat larger, from the Indian one, I am inclined to think that Bonaparte's bird is identical with the true *T. cambayensis*.

t', *u'*, *v'*. ♂ ♀ ad. sk.	Mysore, May (*W. Davison*).	Hume Coll.
w'. ♂ ad. sk.	Segore, Feb. (*W. Davison*).	Hume Coll.
x', *y'*. Ad. sk.	Madras.	Gould Coll.
z'. Ad. sk. [var.].		Hume Coll.
a''. Juv. sk.	? Himalaya Mts.	Purchased.
b''. Skeleton.	India.	Purchased.

Subfamily III. GEOPELIINÆ.

Key to the Genera.

a. Tail of 14 feathers; first primary attenuated at the tip ..... 6. GEOPELIA, p. 454.
b. Tail of 12 feathers; first primary not attenuated at the tip.
  a'. Periophthalmic region not broadly naked ..... 7. SCARDAFELLA, p. 463.
  b'. Periophthalmic region broadly naked.. 8. GYMNOPELIA, p. 468.

6. GEOPELIA.

	Type.
Geopelia, *Sw. Class. B.* ii. p. 348 (1837)	G. striata.
Tomopeleia, *Rchnb. Av. Syst. Natur.* p. xxv (1852) ..	G. maugei.
Geopeleia, *Rchnb. ibid.* (*nomen emend.*).	
Stictopeleia, *Rchnb. ibid.* (1852)	G. cuneata.
Erythrauchæna, *Bp. Consp. Av.* ii. p. 93 (1854)	G. humeralis.
Tomopelia, *Bp. op. cit.* p. 94 (1854).	
Stictopelia, *Bp. op. cit.* p. 95 (1854).	
Chrysauchœna (*errore*), *Bp. Compt. Rend.* xl. p. 210 (1855)	G. humeralis.
Erythauchœna (*sic*), *Bp. Compt. Rend.* xl. p. 221 (1855).	

Range. From Burma to Australia.

Key to the Species.

a. Nape rufous ..... *humeralis*, p. 455.
b. Nape not rufous.
  a'. Upper parts distinctly banded.
    a''. More or less delicate pale vinous underneath.
      a^3. Only the neck banded all round ..... *tranquilla*, p. 456.
      b^3. Neck, breast, and sides banded: middle of the lower parts delicate pale vinous.. *striata*, p. 458.
    b''. No pale vinous underneath: neck, breast, and sides banded ..... *maugei*, p. 461.
  b'. Upper parts grey, with no dark bands; upper wing-coverts with small white spots .... *cuneata*, p. 462.

1. Geopelia humeralis.

Columba humeralis, *Temm. Tr. Linn. Soc.* xiii. p. 128 (1821); *id. Pl. Col.* 192 (livr. 32, 1823); *Desm. Dict. Sc. Nat.* xl. p. 348 (1826); *Steph. Gen. Zool.* xiv. p. 291 (1826); *Less. Compl. de Buff., Ois.* viii. p. 74 (1837); *id. op. cit.* 2nd ed. p. 289 (1838); *Prév. & Knip, Pig.* ii. p. 9, pl. 5 (1838–43); *Müll. Verh. Land- en Volkenk.* p. 23 (1839–1844).

Columba erythrauchen, *Wagl. Syst. Av.* Columba, sp. 98 (1827).

Peristera humeralis, *Boie, Isis*, 1828, p. 327.

Geopelia humeralis, *G. R. Gr. Gen. B.* ii. p. 471, n. 1 (1844); *Gould, B. Austr.* v. pl. 72 (part xv., 1844); *Blyth, Cat. B. Mus. A. S. B.* p. 235, n. 1425 (1849); *Rchnb. Vög. Neuholl.* p. 321, n. 434 (1850); *Macgill. Narr. Voy. 'Rattlesnake,'* p. 358 (1852); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 38 (1856); *Sclat. Journ. Pr. Linn. Soc.* ii. p. 168, n. 149 (1858); *G. R. Gr. P. Z. S.* 1858, p. 146; *id. Cat. B. New Guin.* pp. 49, 61 (1859); *id. P. Z. S.* 1861, p. 437; *Gould, P. Z. S.* 1863, p. 233; *Finsch, Neu-Guin.* p. 179 (1865); *Garrod, P. Z. S.* 1873, pp. 468, 639; *Schleg. Mus. P.-B.* Columbæ, p. 130 (1873); *Gieb. Thes. Orn.* ii. p. 250 (1875); *Salvad. & D'Alb. Ann. Mus. Civ. Gen.* vii. p. 836 (1875); *Salvad. ibid.* ix. pp. 43, 205, n. 71 (1876); *Rams. Pr. Linn. Soc. N. S. W.* i. p. 394 (1876); *Sharpe, Journ. Linn. Soc., Zool.* xiii. p. 503 (1877); *Forbes, P. Z. S.* 1878, p. 126; *Rams. Pr. Linn. Soc. N. S. W.* iii. p. 293 (1878), iv. p. 101, n. 172 (1879); *Sharpe, Journ. Linn. Soc., Zool.* xiv. p. 688 (1879); *D'Alb. Nuova Guin.* p. 585 (1880); *Salv. Cat. B. Strickl. Coll.* p. 553 (1882); *Sclat. List Vert. An.* 8th ed. p. 451 (1883); *Sharpe, Voy. 'Alert,'* p. 25 (1884); *Rams. Tab. List*, p. 18, n. 546 (1888); *Tristr. Cat. Coll. B.* p. 41 (1889); *Brisay, Bull. Soc. Acclim.* 1889, p. 54.

Geopelela humeralis, *Rchnb. Av. Syst. Nat.* p. xxv (1852); *id. Tauben*, i. p. 28, t. 250. ff. 1383–84 (1862).

Erythrauchæna humeralis, *Bp. Consp. Av.* ii. p. 93 (1854); *id. Compt. Rend.* xl. p. 221, n. 280 (1855); *id. Coup d'œil Ordr. Pig.* p. 59, n. 280 (1855); *Rosenb. N. T. N. I.* xxv. p. 250, n. 242 (1863); *id. J. f. O.* 1864, p. 133, n. 242; *Gould, Handb. B. Austr.* ii. p. 142 (1865); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 23 (1873); *Rams. P. Z. S.* 1876, p. 116; *Mast. Pr. Linn. Soc. N. S. W.* i. p. 59, n. 91 (1876); *Rams. Pr. Linn. Soc. N. S. W.* ii. p. 197, n. 534 (1877); *North, Descr. Cat. Nests & Eggs B. Austr.* p. 277 (1889).

Chrysauchœna humeralis, *Bp. Compt. Rend.* xl. p. 210 (1854); *id. Coup d'œil Ordr. Pig.* p. 48 (1855).

Turtur humeralis, *Schleg. De Dierent.* fig. p. 207 (1864).

Geopelia humilis (*errore*), *Garr. P. Z. S.* 1874, p. 256.

Erythrauchœna humeralis, *G. R. Gr. Hand-list*, ii. p. 236, n. 9289 (1870); *Masters, Pr. Linn. Soc. N. S. W.* ii. p. 275 (1878); *Salvad. Orn. Pap. e Mol.* iii. p. 159 (1882); *id. Ann. Mus. Civ. Gen.* (2) ix. p. 589 (1890); *id. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 63 (*Agg. Orn. Pap. e Mol.* p. 189) (1891).

Adult male. **Forehead, cheeks, neck in front and on the sides, and upper breast delicate grey, paler on the forehead and chin; occiput, back, wing-coverts, rump, and upper tail-coverts pale brown; back of the neck rufous, every feather of the upper surface edged at the extremity by a narrow band of black, giving the whole a squamated or scaled appearance; lower breast,**

especially on the sides, and under tail-coverts pale vinous; centre of the abdomen white; quills and primary-coverts brown, cinnamon, except their tips, on the inner webs; also the under wing-coverts cinnamon; central tail-feathers greyish brown, the remainder rufous-chestnut tipped with white, the outer web greyer on the inner feathers: "irides ochre-yellow; bill and nostrils delicate mealy light blue; naked skin round the eye mealy purple; legs and feet pink-red" (*Gould*). Total length 11 inches, wing 5·5, tail 5·5, bill 0·7, tarsus 1.

Female. Like the male, only the grey of the breast darker and duller.

Hab. Australia except the south-west, and Southern New Guinea.

a. ♂ ad. sk.	Thursday Isl., Torres Straits, June (*Dr. Coppinger*).	Voy. H.M.S. 'Alert.'
b. ♀ ad. sk.	Friday Isl., Torres Straits, July (*Dr. Coppinger*).	Voy. H.M.S. 'Alert.'
c, d. ♂ ad. sk.	Horn Isl., Torres Straits, July (*Dr. Coppinger*).	Voy. H.M.S. 'Alert.'
e. Ad. sk.	Adelaide R., Port Darwin.	P. W. Bassett Smith, Esq. [P.].
f, g, h. Ad. st. et ad. sk.	N.W. Australia.	Sir G. Grey [P.].
i. Ad. sk.	N.W. Australia.	Capt. Bowyer Bower, [P.].
k, l. Ad. st.	Port Essington.	Capt. W. Chambers, [P.].
m, n. Ad. sk.	Cape York.	Gould Coll.
o. Juv. sk.	Cape York.	Hume Coll.
p. ♂ ad. sk.	Cape York.	'Challenger' Exped.
q. Ad. sk.	Port Albany (*C. Coxen*).	Tweeddale Coll.
r. ♂ ad. sk.	Port Curtis, Queensland, April (*Dr. Coppinger*).	Voy. H.M.S. 'Alert.'
s. ♀ ad. sk.	Moreton Isl., Oct. (*J. McGillivray*).	Voy. H.M.S. 'Rattlesnake.'
t. Ad. sk.	East coast of Australia.	Linnean Soc. Coll. (Type of species.)
u. Ad. sk.	Australia (*J. T. Cockerell*).	Salvin-Godman Coll.
v. Skull.		Voy. H.M.S. 'Rattlesnake.'

2. Geopelia tranquilla.

Geopelia placida, *Gould, P. Z. S.* 1844, p. 55 * (Port Essington); *id. B. Austr.* i. *Introd.* p. lxxi, sp. 436 (184–?); *Rchnb. Vög. Neuholl.* p. 322, n. 436 (1850); *Bp. Consp. Av.* ii. p. 95 (1854); *id. Compt. Rend.* xl. pp. 210, 221, n. 283 (1855); *id. Coup d'œil Ordre Pig.* pp. 48, 59, n. 283 (1855); *Rchnb. Tauben*, i. p. 28 (1862); *Gould, Handb. B. Austr.* ii. p. 145 (1865); *G. R. Gr. Hand-list*, ii. p. 236, n. 9288 (1870); *Gieb. Thes. Orn.* ii. p. 250 (1875); *Rams. Pr. Linn. Soc. N. S. W.* i. p. 394 (1876), ii. p. 196, n. 536 (1877); *Mast. Pr. Linn. Soc. N. S. W.* ii. p. 275 (1877) (Port

* Although the name *G. placida* has the priority of one page over *G. tranquilla*, I prefer the latter, which has been more frequently used and applies to the larger bird.

Darwin); *Rams. op. cit.* iii. pp. 104, 293 (Hall Sound) (1878), iv. p. 101 (1879); *Sclat. List Vert. An.* 8th ed. p. 450 (1883); *Rams. Tab. List*, p. 18, n. 548 (1888); *Brisay, Bull. Soc. Acclim.* 1889, p. 53; *Tristr. Cat. Coll. B.* p. 41 (1889).

Geopelia tranquilla, *Gould, P. Z. S.* 1844, p. 56 (interior of New S. Wales); *id. B. Austr.* v. pl. 73 (part xix., 1845); *G. R. Gr. Gen. B.* App. p. 23 (1849); *Blyth, Cat. B. Mus. A. S. B.* p. 235, n. 1426 (1849); *Rchnb. Vög. Neuholl.* p. 321, n. 435 (1850); *Bp. Consp. Av.* ii. p. 94 (1854); *id. Compt. Rend.* xl. pp. 210, 221, n. 282 (1855); *id. Coup d'œil Ordr. Pig.* pp. 48, 59, n. 282 (1855); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 37 (1856); *Elsey, P. Z. S.* 1857, p. 27; *Gould, Handb. B. Austr.* ii. p. 144 (1865); *Pelz. Novara Reise, Vög.* p. 109 (1865); *Rams. P. Z. S.* 1868, p. 387; *G. R. Gr. Handlist*, ii. p. 236, n. 9287 (1870); *Schleg. Mus. P.-B.* Columbæ, p. 131 (1873); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 24 (1873); *Gieb. Thes. Orn.* ii. p. 250 (1875); *Rams. P. Z. S.* 1876, p. 116; *Salvad. Ann. Mus. Civ. Gen.* ix. pp. 43, 205, n. 72 (1876); *Forbes, P. Z. S.* 1878, p. 126 (Cape York); *D'Alb. Nuova Guin.* p. 585 (1880); *Forbes, Voy. Challeng., Birds*, p. 91 (1881); *Salvad. Orn. Pap. e Mol.* ii. p. 154 (1882); *Salv. Cat. B. Strickl. Coll.* p. 553 (1882); *Sclat. List Vert. An.* 8th ed. p. 450 (1883); *Rams. Pr. Linn. Soc. N. S. W.* vii. p. 54 (1883); *Finsch, Vög. d. Südsee*, pp. 29, 39 (1884); *Sharpe, Voy. 'Alert,'* p. 25 (1884); *Rams. Tab. List*, p. 18, n. 547 (1888); *North, Descr. Cat. Nests & Eggs B. Austr.* p. 278 (1889); *Tristr. Cat. Coll. B.* p. 41 (1889); *Salvad. Ann. Mus. Civ. Gen.* (2) ix. p. 539 (1890), x. p. 826 (1891); *id. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 63 (*Agg. Orn. Pap. e Mol.* p. 189) (1891); *Hartert, Kat. Vogelsamml.* p. 185 (1891).

Geopelia tranquilla, *Rchnb. Av. Syst. Nat.* p. xxv (1852); *id. Tauben*, i. p. 27, t. 265. ff. 1476–77 (1862).

Geopelia placida (pallida *), *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 37 (1856).

Adult male. Forehead, cheeks, and throat grey; occiput, back, and wings ashy brown, each feather with a band of velvety black at the extremity; neck all round with numerous narrow white and black bands, whiter in front; breast and sides delicate pale vinous; abdomen and under tail-coverts white; winglet and primary-coverts blackish, quills brown, whitish rufous at the base of the inner webs; under wing-coverts chestnut; four central tail-feathers ashy brown, the remainder black, largely tipped with white: "irides light ashy grey; bill and orbits bright greyish blue, becoming much paler before and behind the eye; frontal scales of the tarsi and feet dark greenish grey; remainder of the legs and feet reddish flesh-colour" (*Gould*). Total length about 8·75 inches, wing 4, tail 4·75, bill 0·62, tarsus 0·62.

Hab. Australia.

a. Ad. st.	Australia.	Purchased.
b. Ad. sk.	Adelaide R., Port Darwin.	P. W. Bassett Smith, Esq. [P.].

* I suppose this trinomial originated from Mr. Gray having misunderstood Bonaparte, who, after alluding to *Geopelia placida* (Consp. Av. ii. p. 95), asked "Quid *Columba pallida*, Lath.?"

c. ♂ ad. sk.	Port Darwin, Nov. (*Dr. Coppinger*).	Voy. H.M.S 'Alert.
d. ♀ imm. sk.	Victoria River.	J. R. Elsey, Esq. [P.].
e. ♂ ad. sk.	Caught at sea, Jan.	Dr. Coppinger [P.].
f. ♂ ad. st.	Port Essington, May.	Capt. Chambers [P.].
g, h. Ad. sk.	Port Essington.	Dr. Sibbald [P.].
i. ♀ imm. sk.	Cape York.	'Challenger' Exped.
k. Ad. sk.	Somerset, Cape York.	Tweeddale Coll.
l. Ad. sk.	N. Australia.	Gould Coll.
m, n. ♂ ad. et ♀ juv. sk.	N.W. Australia.	Capt. Bowyer Bower [P.].
o, p, q. Ad. sk.	N.W. Australia.	Sir G. Grey [P.].
r, s. Ad. sk.	Australia (*J. T. Cockerell*).	Salvin-Godman Coll.
t. Ad. sk.	Queensland.	Tweeddale Coll.
u. ♀ ad. sk.	Port Curtis, Queensland, April (*Dr. Coppinger*).	Voy. H.M.S. 'Alert.'
v. Ad. sk.	Moreton Bay.	Gould Coll.
w. Ad. sk.	New South Wales.	Gould Coll.
x, y. Ad. sk.	S. Australia.	Sir G. Grey [P.].
z. Ad. sk.	S. Australia.	Capt. Stuart [P.].
a'. Ad. sk.	Australia.	Sir T. Mitchell [P.].
b'. Ad. sk.	Van Diemen's Land.	Purchased.

3. Geopelia striata.

Transverse striped or Barred Dove, *Edw. Birds*, i. pl. 16 (1750).
Dove from China, *Alb. Orn.* iii. p. 43, t. 46.
Turtur sinensis striatus, *Briss. Orn.* i. p. 107 (1760) (*ex Albin* ?).
Turtur indicus striatus, *Briss. Orn.* i. p. 109 (1760) (*ex Edwards* ?).
Columba striata, *Linn. S. N.* i. p. 282, n. 18 (1766) (*ex Brisson*); *Jacq. Beitr.* p. 34, n. 28, t. 15 (1784); *Gm. S. N.* i. 2, p. 775, n. 18 (1788); *Lath. Ind. Orn.* ii. p. 608, n. 53 (1790); *Bonn. Enc. Méth.* p. 243, pl. 74. f. 2 (1790); *Vieill. N. D.* xxvi. p. 384 (1818); *Wagl. Syst. Av.* Columba, sp. 106 (1827); *Thienem. Fortpfl.* p. 60, t. xi. f. 10 (egg) (1846); *Schleg. Handl. Dierk.* i. p. 404 (1857).
Columba sinica, *Linn. S. N.* i. p. 284, n. 28 (1760) (*ex Albin*); *Gm. S. N.* i. p. 783, n. 28 (1788); *Lath. Ind. Orn.* ii. p. 608, n. 52 (1790); *Temm. Pig. et Gallin.* i. pp. 373, 472 (1813); *Vieill. N. D.* xxvi. p. 384 (1818); *Steph. Gen. Zool.* xi. p. 68 (1819); *Desm. Dict. Sc. Nat.* xl. p. 377 (1826).
Tourterelle rayée des Indes, *Buff. Hist. Nat. Ois.* ii. p. 557 (1771).
Tourterelle rayée de la Chine, *Buff. op. cit.*
Petite Tourterelle de Quéda, *Sonn. Voy. aux Ind. et à la Chine*, ii. p. 177 (1776).
Striated Turtle, *Lath. Syn.* ii. 2. p. 650, n. 43 (1783).
Barred Turtle, *Lath. op. cit.* n. 44.
Malacca Turtle, *Lath. op. cit.* p. 661, n. 60.
Columba malaccensis, *Gm. S. N.* ii. p. 788, n. 68 (1788) (*ex Sonnerat*); *Lath. Ind. Orn.* ii. p. 612, n. 69 (1790); *Bonn. Enc. Méth.* p. 253 (1790); *Temm. & Knip, Pig.* i. fam. sec. pl. 47 (1808–11); *Temm. Pig. et Gallin.* i. pp. 339, 484 (1873); *Vieill. N. D.* xxvi. p. 383 (1818); *Steph. Gen. Zool.* xi. 1. p. 88 (1819); *Desm. Dict. Sc. Nat.* xl. p. 353 (1826); *S. Müll. Verh. Land- en Volkenk.* p. 109 (1839–44); *Schleg. Handl. Dierk.* i. p. 404 (1857).
Columba bantamensis, *Sparrm. Mus. Carls.* fasc. iii. t. 57 (1788);

Lath. Ind. Orn. ii. p. 615, n. 77 (1790); *Bonn. Enc. Méth.* p. 256 (1790); *Vieill. N. D.* xxvi. p. 375 (1818); *Horsf. Trans. Zool. Soc.* xiii. p. 183 (1821); *Raffl. Trans. Zool. Soc.* xiii. 2, p. 319 (1822); *Less. Compl. de Buff., Ois.* viii. p. 57 (1837); *id. op. cit.* 2nd ed. p. 284 (1838).

Columba lunulata, *Bonn. Enc. Méth.* p. 251 (1790) (*ex Brisson*).

Columba fowat, *Bonn. op. cit.* p. 251 (1790) (*ex Brisson*).

Peristera malaccensis, *Boie, Isis*, 1828, p. 327.

Columba moluccensis (*errore*), *Less. Tr. d'Orn.* p. 474 (1831).

Geopelia lineata, *Sw. Class. B.* ii. p. 348 (1837).

Geopelia striata, *G. R. Gr. List Gen. B.* p. 58 (1840); *id. Gen. B.* ii. p. 471, n. 2 (1844), App. p. 23 (1849); *Blyth, Cat. B. Mus. A. S. B.* p. 235, n. 1428 (1849); *Bp. Consp. Av.* ii. p. 94 (1854); *id. Compt. Rend.* xl. pp. 210, 211, 221, n. 284; *id. Coup d'œil Ordre Pig.* pp. 48, 49, 59, n. 284 (1855); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 36 (1856); *Moore, P. Z. S.* 1859, p. 466; *Hartl. J. f. O.* 1860, p. 162; *id. Orn. Beitr. Faun. Madag.* p. 67 (1861); *E. Newt. Ibis*, 1861, pp. 116, 182, 274; *Maill. Not. Ile Réun.* p. 163 (1862); *Blyth, Ibis*, 1862, p. 92; *Wall. P. Z. S.* 1863, p. 486; *Pollen, N. T. D.* i. p. 319 (1863); *Jerd. B. of Ind.* iii. p. 486 (1864); *Sclat. P. Z. S.* 1864, p. 139; *Finsch, Neu-Guin.* p. 179 (1865); *Wall. Ibis*, 1865, p. 394, n. 115; *id. J. f. O.* 1866, p. 284; *Mart. J. f. O.* 1866, pp. 24, 284 (note); *Schleg. P. Z. S.* 1866, p. 424; *E. Newt. Ibis*, 1867, pp. 342, 359; *Sclat. P. Z. S.* 1869, p. 227; *G. R. Gr. Hand-list*, ii. p. 236, n. 9286 (1870); *Wald. Ibis*, 1871, p. 177; *id. Tr. Zool. Soc.* viii. p. 86 (1872); *Sunder. Meth. nat. Av. disp. Tent.* p. 100 (1872); *Schleg. Mus. P.-B.* Columbæ, p. 131 (1873); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 23 (1873); *Pelz. Ibis*, 1873, p. 34; *Garr. P. Z. S.* 1873, pp. 468, 639, 1874, p. 256; *Salvad. Cat. Uce. Born.* p. 298, n. 314 (1874); *Gieb. Thes. Orn.* ii. p. 250 (1875); *Wald. Tr. Zool. Soc.* ix. p. 223 (1875); *Hume, Str. Feath.* iii. p. 323 (1875); *Sharpe, Tr. Linn. Soc.* (2) *Zool.* i. p. 353 (1876); *Salvad. Ann. Mus. Civ. Gen.* ix. p. 205, n. 73 (1876); *Hartl. Vög. Madag.* p. 404 (1877); *Tweedd. Ibis*, 1877, p. 322 (Sumatra); *Hume & Davis. Str. Feath.* vi. p. 423 (1878); *Beec. Ann. Mus. Civ. Gen.* xiii. p. 454 (1878); *Salvad. ibid.* xiv. p. 247 (1879); *Hume, Str. Feath.* viii. p. 110 (1879); *Meyer, Ibis*, 1879, p. 138; *Tweedd. Orn. Works*, pp. 112, 186, 386, 412, 503, 513, 525 (1881); *Wardl. Rams. ibid.* p. 659 (1881); *Meyer, Verh. z.-b. Ges. Wien*, 1881, p. 772; *Kelh. Ibis*, 1881, p. 528; *Salvad. Orn. Pap. e Mol.* iii. p. 155 (1882); *Oates, B. of Brit. Burm.* ii. p. 298 (1883); *Sclat. List. Vert. An.* 8th ed. p. 450 (1883); *Shell. Ibis*, 1883, p. 330; *Snellem. Sum.-Exp., Vogels*, p. 49 (1884); *Vorderm. N. T. N. I.* xliv. p. 229 (1884), xlv. p. 404 (1885), xlvi. pp. 89, 236 (1886); *Büttik. Not. Leyd. Mus.* ix. p. 77 (1886); *Vorderm. N. T. N. I.* xlix. p. 413 (1889); *Tristr. Cat. Coll. B.* p. 41 (1889); *Steere, List Mamm. & B.* p. 24 (1890) (Luzon); *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 63 (*Agg. Orn. Pap. e Mol.* p. 189) (1891); *Hartert, Kat. Vogelsamml.* p. 185 (1891); *Vorderm. N. T. N. I.* li. p. 422 (1892).

Geopeleia striata, *Rchnb. Av. Syst. Nat.* p. xxv (1862); *id. Tauben*, i. p. 26, t. 250. ff. 1385–86 (1862), ii. p. 164 (1862).

Geopelia malaccensis, *Hom. J. f. O.* 1859, p. 361.

Turtur striatus, *Schleg. De Dierent.* p. 207 (1864); *Schleg. & Poll. Rech. Faun. Madag.* p. 162 (1868).

Turtur malaccensis, *Schleg. & Poll. Rech. Faun. Madag.* p. 155 (1868).

Adult male. Anterior half of the crown, cheeks, and throat ashy; hind part of the crown and occiput reddish; nape, sides of the neck and of the breast with white and black narrow bands; back, rump, and upper wing-coverts pale brown with narrow black bands; upper tail-coverts pale brown, with narrow apical black edges; middle of the breast pale vinous; abdomen and under tail-coverts buffy white; sides and flanks buffy white, with narrow black bands; quills brown, the inner webs partly cinnamon; under wing-coverts cinnamon with narrow black bands; central tail-feathers brown, the lateral ones black, broadly tipped with white: iris brown; bill black; feet purple. Total length about 8·5 inches, wing 4·2, tail 4·4, bill 0·5, tarsus 0·7.

Female. Similar to the male, but smaller and less reddish on the occiput.

Hab. South Tenasserim, Malay Peninsula, Indo-Malay Archipelago with the Philippines, and as far south as Lombock, and also Celebes and Amboyna in the Austro-Malay Archipelago; introduced in the Seychelles, Madagascar, Mauritius, Round Island, Réunion, and St. Helena.

a. Ad. st.		G. Jarvis, Esq. [P.].
b. Ad. sk.	Siam (*Schomburgk*).	Gould Coll.
c–k. ♂ ♀ ad. sk.	Pakchan, Jan. (*W. Davison*).	Hume Coll.
l, m. Ad. sk.	Pinang (*Cantor*).	India Museum [P.].
n, o, p. ♀ ad. et ad. sk.	Pinang, Nov., Dec. (*W. Davison*).	Hume Coll.
q–v. ♂ ♀ ad. sk.	Tongkah, Jan. (*W. Davison*).	Hume Coll.
w, x. ♂ ♀ ad. sk.	Taroar, Feb. (*J. Darling*).	Hume Coll.
y–l'. ♂ ♀ ad. et juv. sk.	Kossoom, April, May, and July (*J. Darling*).	Hume Coll.
m'–z'. ♂ ♀ ad. et imm. sk.	Salang, Feb., March (*J. Darling*).	Hume Coll.
a'', b''. ♂ ad. sk.	Johore, July (*W. Davison*).	Hume Coll.
c'', d'', e''. ♂ ♀ ad. sk.	Klang, May (*W. Davison*).	Hume Coll.
f'', g'', h''. ♂ ad. et ad. sk.	Singapore, Sept., Dec. (*W. Davison*).	Hume Coll.
i''–o''. ♂ ♀ ad. et juv. sk.	Singapore Is., Feb., Sept., Oct., Dec. (*W. Davison*).	Hume Coll.
p''. ♂ ad. sk.	Sidjoendjong, Sumatra, Oct. (*Carl Bock*).	Tweeddale Coll.
q'', r'', s''. Ad. sk.	Lampong, S.E. Sumatra.	Tweeddale Coll.
t''. Ad. sk.	Billiton.	Tweeddale Coll.
u''. ♂ ad. sk.	Madura, Nov. (*A. B. Meyer*).	Tweeddale Coll.
v'', w''. Ad. sk.	Java (*Horsfield*).	India Museum [P.].
x'', y'', z''. Ad. sk.	Java.	Tweeddale Coll.
a^3, b^3. Ad. sk.	W. Java (*Burton*).	F. Nicholson, Esq. [P.].
c^3, d^3. ♂ ad. et ad. sk.	Lombock.	Wallace Coll.
e^3. ♂ ad. sk.	Lombock (*Wallace*).	Gould Coll.
f^3, g^3. Ad. sk.	Manilla (*Maitland-Heriot*).	Tweeddale Coll.
h^3, i^3. ♂ ♀ ad. sk.	Monte Alban, Feb. (*A. H. Everett*).	Salvin-Godman Coll.

k^3, l^3, m^3. ♂ ♀ ad. sk.	San Mateo, Jan., Feb. (*A. H. Everett*).	Tweeddale Coll.
n^3. ♀ ad. sk.	Isle Cousine, Seychelles, Nov.	Shelley Coll.
o^3, p^3. Ad. sk.	Mauritius (*Bewsher*).	Shelley Coll.
q^3–u^3. Ad. sk.	Réunion.	M. Van Dam [P.].
v^3. Ad. sk.	St. Helena (*G. E. Shelley*).	Shelley Coll.
w^3. Skeleton.	Java.	Purchased.

4. Geopelia maugei.

Columbus maugeus (!), *Temm. & Knip, Pig.* i. fam. seconde, p. 115, pl. 52 (1808–11).

Columba maugei, *Temm. Pig., Index*, p. 49 (1811); *id. Pig. et Gallin.* i. fam. sec. pp. 363, 490 (1813); *Vieill. N. D.* xxvi. p. 352 (1818); *Steph. Gen. Zool.* xi. p. 98 (1819); *Desm. Dict. Sc. Nat.* xl. p. 360 (1826); *Wagl. Syst. Av.* Columba, sp. 105 (1827); *Less. Tr. d'Orn.* p. 474 (1831); *id. Compl. de Buff., Ois.* viii. p. 72 (1837); *id. op. cit.* 2nd ed. p. 289 (1838).

Geopelia maugei, *G. R. Gr. List Gallinæ Brit. Mus.* p. 11 (1844); *Bp. Consp. Av.* ii. p. 94 (1854); *id. Compt. Rend.* xl. pp. 210, 221, n. 281 (1855); *id. Coup d'œil Ordre Pig.* pp. 48, 59, n. 281 (1855); *Wall. P. Z. S.* 1863, p. 486; *id. Ibis*, 1865, p. 394, n. 114; *id. J. f. O.* 1866, p. 284; *Sclat. P. Z. S.* 1867, p. 687; *Rosenb. Reis naar Zuidoostereil.* p. 81 (1867); *Schleg. Mus. P.-B.* Columbæ, p. 132 (1873); *Gieb. Thes. Orn.* ii. p. 250 (1875); *Salvad. Ann. Mus. Civ. Gen.* ix. p. 205, n. 74 (1876); *Rosenb. Malay. Archip.* p. 372 (1879); *Salvad. Ann. Mus. Civ. Gen.* xiv. p. 663 (1879); *id. Orn. Pap. e Mol.* iii. p. 157 (1882); *Sclat. List Vert. An.* 8th ed. p. 451 (1883); *id. P. Z. S.* 1883, pp. 51, 195, 200 (Timor-laut); *Forb. P. Z. S.* 1884, p. 433; *Guillem. P. Z. S.* 1885, p. 510 (Sumbawa, Flores, Wetter, and Letti); *Büttik. Not. Leyd. Mus.* viii. p. 67 (1886); *Tristr. Cat. Coll. B.* p. 41 (Flores) (1889); *Salvad. Ann. Mus. Civ. Gen.* (2) ix. p. 491 (1890); *id. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 63 (*Agg. Orn. Pap. e Mol.* p. 491) (1891).

Geopelia maugeus (!), *G. R. Gr. Gen. B.* ii. p. 471, n. 4 (1844).

Geopelia albiventris, *Blyth, J. A. S. B.* xviii. p. 817 (1849); *id. Cat. B. Mus. A. S. B.* p. 235, n. 1427 (1849).

Tomopeleia maugei, *Rchnb. Av. Syst. Nat.* p. xxv (1852); *G. R. Gr. Hand-list*, ii. p. 236, n. 9291 (1870).

Columba multicincta. *Temm. Mus. Lugd. fide Bp. Compt. Rend.* xl. p. 210 (1855); *id. Coup d'œil Ordre Pig.* p. 48 (1855) (Sumbava).

Geopeleia maugei, *Rchnb. Tauben*, i. p. 27, t. 253 *b.* f. 3380 (1862).

Turtur maugei, *Finsch, Neu-Guin.* p. 178 (1865).

Adult male. Front part of the head, cheeks, and throat grey; occiput pale brown; neck, breast, and sides with numerous narrow black and white bands; on the hind neck the light bands are greyish; back and upper wing-coverts greyish brown, each feather edged with black at the end; abdomen and under tail-coverts white; quills brown, the primaries on the inner web cinnamon, and with a very narrow edge on the outer web cinnamon-grey; under wing-coverts cinnamon; four central tail-feathers greyish brown, the lateral ones black, broadly tipped with white: "iris pale

yellow; bill leaden; tarsus ashy-blue, marked with violet" (*Guillemard*). Total length 8·5 inches, wing 4·25, tail 4·25, bill 0·52 tarsus 0·58.

Female. Like the male.

Hab. Timor group—Timor, Flores, Sumbawa, Wetter, Lettie; Tenimber Islands, Ké Islands, Koohr, and doubtfully Ternate.

a. Ad. sk.	Timor (*Wallace*).	Tweeddale Coll.
b. Ad. sk.	Timor (*Wallace*).	Seebohm Coll.
c, d, e. ♂ ♀ ad. et ad. sk.	E. Timor.	Wallace Coll.
f, g. ♂ ♀ ad. sk.	Semao, Timor.	Wallace Coll.
h, i. Ad. sk.	Flores.	Wallace Coll.
k, l. Ad. sk.	Flores (*Wallace*).	Salvin-Godman Coll.
m. Ad. sk.	Solor.	Wallace Coll.
n. ♂ ad. sk.	Larat, Timorlaut, Sept.	H. O. Forbes, Esq. [C.].
o. ♀ ad. sk.	Larat, Timorlaut, Aug. (*H. O. Forbes*).	Tweeddale Coll.
p. ♀ ad. sk.	Moloe, Tenimber Is., Sept. (*H. O. Forbes*).	Tweeddale Coll.
q. ♀ ad. sk.	Moloe, Tenimber Is., Sept.	H. O. Forbes, Esq. [C.].
r. ♀ ad. sk.	Loetoe, Tenimber Is., Aug. (*H. O. Forbes*).	Salvin-Godman Coll.

5. Geopelia cuneata.

Grey-necked Pigeon, *Lath. Gen. Syn. Suppl.* ii. Add. p. 375 (1802).

Columba cuneata, *Lath. Ind. Orn. Suppl.* p. lxi, n. 8 (1802); *Vieill. N. D.* xxvi. p. 368 (1818); *id. Enc. Méth.* i. p. 378 (1826); *Desm. Dict. Sc. Nat.* xl. p. 376 (1826); *Wagl. Syst. Av.* Columba, sp. 107 (1827); *Less. Compl. de Buff., Ois.* viii. p. 73 (1837); *id. op. cit.* 2nd ed. p. 289 (1838).

Columba macquarie, *Quoy & Gaim. Voy. de l'Uran., Ois.* p. 122, pl. 31 (1824); *Desm. Dict. Sc. Nat.* xl. p. 362 (1826); *Less. Tr. d'Orn.* p. 474 (1831); *Knip & Prév. Pig.* ii. pl. 41 (1838-43).

Columba spiloptera, *Vig. Zool. Journ.* v. p. 275 (1830); *Stoddart, P. Z. S.* 1834, p. 54; *Less. Compl. de Buff., Ois.* viii. p. 80 (1837); *id. op. cit.* 2nd ed. p. 291 (1838).

Geopelia cuneata, *G. R. Gr. List Gallinæ Brit. Mus.* p. 11 (1844); *id. Gen. B.* ii. p. 471, n. 3 (1844); *Gould, B. Austr.* v. pl. 74 (pt. xviii., 1845); *Rehb. Syn. Av.* ff. 1387–89, 1478–79 (1847); *id. Vog. Neuholl.* p. 322, n. 437 (1850); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 37 (1856); *Schleg. Mus. P.-B.* Columbæ, p. 133 (1873); *Gieb. Thes. Orn.* ii. p. 250 (1875); *Rams. Pr. Linn. Soc. N. S. W.* ii. p. 196, n. 537 (1877); *Salv. Cat. B. Strickl. Coll.* p. 553 (1882); *Rams. Pr. Linn. Soc. N. S. W.* vii. p. 54 (1883); *Sclat. List Vert. An.* 8th ed. p. 450 (1883); *Rams. Tab. List*, p. 18, n. 549 (1888); *Brisay. Bull. Soc. Acclim.* 1889, p. 52; *Tristr. Cat. Coll. B.* p. 41 (1889); *Hartert, Kat. Vogelsammd.* p. 185 (1891).

Stictopelia cuneata, *Rehb. Av. Syst. Nat.* p. xxv (1852); *id. Tauben*, i. p. 29, t. 250, ff. 1387–89, t. 265, ff. 1478–79 (1862); *G. R. Gr. Hand-list*, ii. p. 326, n. 9290 (1870).

Stictopelia cuneata, *Bp. Consp. Av.* ii. p. 95 (1854); *id. Compt. Rend.* xl. pp. 21, 221, n. 285 (1855); *id. Coup d'œil Ordre Pig.* pp. 49,

59, n. 285 (1855); *Gould, Handb. B. Austr.* ii. p. 146 (1865); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 23 (1873); *North, Descr. Cat. Nests & Eggs B. Austr.* p. 279 (1889).
Turtur cuneatus, *Schleg. De Dierent.* p. 207 (1864).

Adult male. Head, neck, and breast delicate grey, passing into white on the abdomen and under tail-coverts; nape, back, and scapularies pale brown; wing-coverts dark grey, each feather and also the scapularies with two white spots, encircled with black, near the edge of the tip; primary-coverts and primaries brown, the latter rufous cinnamon on their inner webs for two thirds of their length; under wing-coverts delicate grey; four central tail-feathers grey, the remainder greyish black at the base and pure white for the remainder of their length: "irides in some instances bright red, and the naked skin round the eyes light scarlet; in others the irides and naked skin round the eyes are pale greenish yellow; bill dark olive-brown; feet reddish flesh-colour in some instances, in others yellowish" (*Gould*). Total length about 7·5 inches, wing 3·7, tail 4, bill 0·42, tarsus 0·5.

Female. Smaller than the male; back of the head, neck, and upper surface browner, and the spots on the wings larger.

Hab. Australia, except Cape York and Rockingham Bay.

a, b. Ad. st. et sk.	Australia.	Sir T. Mitchell [P.].
c, d. Ad. sk.	Australia (*J. T. Cockerell*).	Salvin-Godman Coll.
e. Ad. sk.	Australia (*J. T. Cockerell*).	Tweeddale Coll.
f. ♀ ad. sk.	N.W. Australia, May.	J. R. Elsey, Esq. [P.].
g. Ad. st.	Mokai, Australia.	Gould Coll.
h. Ad. sk.	Yarrundi, Australia.	Gould Coll.
i. Ad. sk.	S. Australia.	Sir G. Grey [P.].
k, l, m. Ad. sk.	S. Australia.	Capt. Sturt, R.N. [P.].
n. Ad. sk.		Gould Coll.
o. ♂ skeleton.		Zool. Society's Coll.

7. SCARDAFELLA.

	Type.
Scardafella, *Bp. Consp. Av.* ii. p. 85 (1845)	S. squamosa.
Micropelia, *Heine, Nomencl. Mus. Hein. Orn.* p. 283 (1890)	S. squamosa.

Range. From the southern border of the United States and Mexico, through Central America to Brazil.

Key to the Species.

a. A white patch on the wing-coverts and secondaries; abdomen and crissum white; black crescentic bars very heavy ..... squamosa, p. 464.

b. No white patch on the wings; abdomen and crissum pale buff; black bars very faint on breast, obsolete on throat ..... inca, p. 465.

1. Scardafella squamosa.

Picui pinima, *Marcgr. Hist. Nat. Bras.* p. 204.

Columba striata, part., *Jacq. Beitr.* p. 34 (1784); *Gm. S. N.* i. p. 775, n. 18 (1788) (Venezuela).

Columba squamosa, *Temm. & Knip* (*nec Bonn.*), *Pig.* i. fam. seconde, p. 127, pl. 59 (1808–11); *Temm. Pig. et Gallin.* i. pp. 336, 484 (1813); *Vieill. N. D.* xxvi. p. 379 (1818); *Steph. Gen. Zool.* xi. p. 90 (1819); *Wied, Reise nach Bras.* ii. pp. 160, 232 (1821); *Vieill. Enc. Méth.* p. 385 (1823); *Desm. Dict. Sc. Nat.* xl. p. 355 (1826); *Wagl. Syst. Av.* Columba, sp. 104 (1827); *Wied, Beitr.* iv. p. 469 (1832); *Less. Compl. de Buff., Ois.* viii. p. 65 (1837); *id. op. cit.* 2nd ed. p. 287 (1838).

Chæmepelia squamosa, *Sw. Zool. Journ.* iii. p. 361 (1827).

Columba squammata, *Less. Tr. d'Orn.* p. 474 (1831).

Columbina squamosa, *G. R. Gr. List Gallinæ B. M.* p. 13 (1844); *Rchnb. Syn. Av.* f. 1409 (*nec* 1410, 1393) (1847).

Geopelia squamosa, *Hartl. Syst. Verz.* p. 98 (1844); *Schleg. Mus. P.-B.* Columbæ, p. 133 (1873).

Chamæpelia squamosa, *G. R. Gr. Gen. B.* ii. p. 473, n. 6 (1845); *Rchnb. Syn. Av.* Columbariæ, *Novit.* t. 253 *b.* f. 3381 (1851) (*ex Knip*); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 51 (1856); *Taylor, Ibis*, 1864, p. 94 (Ciudad Bolivar, Orinoco); *Gieb. Thes. Orn.* i. p. 635 (part.) (1872).

Œna capensis (*errore*), *Rchnb. Syn. Av.* f. 1392 (1847).

Œna squamosa, *Rchnb. Av. Syst. Nat.* p. xxv (1852).

Macropygia squamosa, *auct. fide Bp. Consp. Av.* ii. p. 85 (1854).

Scardafella squamosa, *Bp. Consp. Av.* ii. p. 85 (1854); *id. Compt. Rend.* xl. pp. 24, 220, n. 253 (1855); *id. Coup d'œil Ordre Pig.* pp. 43, 58, n. 253 (1855); *id. Compt. Rend.* xliii. p. 946 (1856); *Rchnb. Tauben*, i. p. 19, t. 250. f. 1392, t. 253. f. 1409, t. 253 *b.* f. 3381 (1862), ii. p. 163 (1862); *Reinh. Vid. Med. Nat. For.* 1870, p. 55; *G. R. Gr. Hand-list.* ii. p. 240, n. 9347 (1870); *Pelz. Orn. Bras.* pp. 277, 451, liv (1871); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 22 (1873); *Sclat. & Salv. Nomencl. Av. Neotrop.* p. 133 (1873); *Baird, Brew., & Ridgw. Hist. N. Am. Birds*, iii. p. 387 (1874); *Salv. & Godm. Ibis*, 1880, p. 178 (Valencia); *Forbes, Ibis*, 1881, p. 356; *Salv. Cat. B. Strickl. Coll.* p. 547 (1882); *Sclat. List Vert. An.* 8th ed. p. 456 (1883); *Ridgw. Man. N. Am. B.* p. 215 (1887); *Hartert, Kat. Vogelsamml.* p. 186 (1891); *Allen, Bull. Am. Mus. Nat. Hist.* iv. p. 56 (1892) (Venezuela).

Columbula squamosa, *Burm. Syst. Ueb. Th. Bras., Vög.* ii. p. 298 (1856).

Micropelia squamosa, *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 283 (1890).

Adult male. Upper parts greyish brown; lower parts white, with a pinkish tinge on the sides and lower neck and also on the breast; each feather edged with a crescentic bar of black, except the under tail-coverts, which are pure white; upper wing-coverts light brown, white towards the tips, and edged with black crescentic bars; bastard-wing and primary-coverts black; quills brown, the primaries have the inner webs cinnamon except at the tip, which is brown; tertials greyish brown like the back, with a narrow white edge on the outer web; under wing-coverts dark brown,

edged with black; two central tail-feathers greyish brown, the next two pairs brown at the base, black towards the tip, the three outer pairs black, with broad white tips, increasing towards the outer feather: "bill brownish black" (*Wied*); "feet flesh-colour; iris carmine-red" (*Simons*). Total length about 8 inches, wing 3·75, tail 4, bill 0·50, tarsus 0·65.

Female. Similar to the male.

Young. Similar, but feathers faintly mottled, and markings less sharply defined.

Hab. Brazil, Venezuela, and Colombia.

a, b. Ad. st.	S. America.	Purchased.
c. Juv. sk.	S. America.	Purchased.
d. ♂ ad. sk.	Pelotas, Rio Grande do Sul, Brazil (*Joyner*).	Salvin-Godman Coll.
e. Ad. st.	Bahia, Brazil.	Sudbury Mus. Coll.
f, g, h. Ad. sk.	Bahia, Brazil (*Wucherer*).	Salvin-Godman Coll.
i, k. Ad. sk.	Pernambuco, Brazil (*Forbes*).	Salvin-Godman Coll.
l. ♂ ad. sk.	José Dias, Brazil, July (*Natterer*).	Salvin-Godman Coll.
m. Ad. sk.	Ceará, N. Brazil (*W. Jesse*).	Salvin-Godman Coll.
n. ♂ ad. sk.	Valencia, U.S. of Colombia, May (*Simons*).	Salvin-Godman Coll.
o, p. Ad. sk.	Trinidad.	Purchased.
q. ♀ skeleton.		Purchased.

2. Scardafella inca.

Cocotzin, *Hernand. Thes.* p. 211, cap. 44.

Columba squamosa, *Licht.* (*nec auct.*) *Preis-Verz. Mexic. Vög. etc.* p. 3, n. 125 (1830); *Wagl. Isis*, 1831, p. 519 (Mexico); *Licht. J. f. O.* 1863, p. 58.

Chamæpelia inca, *Less. Descr. Mamm. et Ois.* p. 211 (1847); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 51 (1856) (Mexico).

Columbina squamosa (part.), *Rchnb. Syn. Av.* ff. 1393, 1410 (?) (1847).

Chamæpelia squamosa, part., *Licht. Nomencl.* p. 83 (1854); *Gieb. Thes. Orn.* i. p. 635 (1872).

Scardafella inca, *Bp. Consp. Av.* ii. p. 85 (1854) (Guatemala); *id. Compt. Rend.* xl. pp. 24, 220, n. 254 (1855); *id. Coup d'œil Ordre Pig.* pp. 43, 58, n. 254 (1855); *id. Compt. Rend.* xliii. p. 946 (1856) (Mexico and Guatemala); *Sclat. P. Z. S.* 1856, p. 309 (Cordova); *Baird, List*, n. 452 (1858); *Sclat. & Salv. Ibis*, 1859, p. 223 (Centr. Amer.); *Moore, P. Z. S.* 1859, p. 61 (Honduras, Guatemala); *Sclat. P. Z. S.* 1859, p. 391 (Oaxaca); *Salv. Ibis*, 1860, p. 45 (Guatemala); *Tayl. Ibis*, 1860, p. 227 (Honduras); *Rchnb. Tauben*, i. p. 19, t. 250. f. 1393, t. 253. f. 1410 (?) (1862), ii. p. 163 (1862); *Sclat. P. Z. S.* 1864, p. 178 (Mexico); *Elliot, Illustr. B. N. Am.* ii. pl. 37 (pt. vii. 1867); *Coop. Orn. Cal.* i. p. 519 (1870); *G. R. Gr. Hand-list*, ii. p. 240, n. 9340 (1870); *Dugès, Naturaleza*, i. p. 141, n. 172 (1870); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 22 (1873); *Sclat. & Salv. Nomencl. Av. Neotrop.* p. 133 (1873); *Baird, Brew., & Ridgw. Hist. N. Am. Birds*, iii. p. 387 (1874); *Lawr. Mem. Best. Soc. N. H.* ii. p. 305 (1874); *id. Bull. U.S. Nat. Mus.* n. 4, p. 44 (1876); *Sanchez, An. Mus.*

Nac. Mexico, i. p. 105, n. 493 (1878); *Ridgw. Cat.* p. 466 (1880); *Sumichrast, Naturaleza*, v. p. 232, n. 31 (1881); *Salv. Cat. B. Strickl. Coll.* p. 247 (1882); *Coues, Check-list*, 2nd ed. p. 92, n. 549 (1882); *Salv. P. Z. S.* 1883, p. 328 (Acapulco); *Coues, Key N. Am. B.* 2nd ed. p. 570 (1884); *A. O. U. Check-list N. A. Birds*, p. 181, n. 321 (1886); *F.-Perez, U.S. Nat. Mus.* ix. p. 175 (Mexico) (1886); *Ridgw. Man. N. Am. B.* p. 216 (1887); *Tristr. Cat. Coll. B.* p. 39 (1889); *Herrera, Naturaleza*, (2) i. p. 327, n. 185 (1890); *id. Apunt. de Ornitol.* p. 21, n. 123 (18—?); *Bendire, Life-Hist. N. A. Birds*, p. 152 (1892); *Attwater, Auk*, 1892, p. 233 (Texas).

Scardafella squamosa, *Baird* (*nec auct.*), *B. N. Am.* p. 605 (1858).

Geopelia inca, *Schleg. Mus. P.-B.* Columbæ, p. 133 (1873).

Scardafella squamosa, var. inca, *Coues, Check-list*, n. 375 (1874).

Micropelia inca, *Hein. & Reichw. Nomencl. Mus. Hein. Orn.* p. 283 (1890).

Adult male. Upper parts, including all the wing-coverts, greyish brown, each feather tipped with a crescentic bar of blackish; forehead and chin whitish; lower parts pale vinous, passing into buff on belly, flanks, and lower tail-coverts, the latter with a greyish mark along the middle; chin, throat, and upper part of chest immaculate, but feathers of breast and abdomen tipped with blackish bars, broadest on flanks; bastard-wing blackish brown; primary-coverts cinnamon, broadly tipped with blackish; primaries cinnamon, with brown tips, and the outer ones also with brown outer webs; secondaries brown, cinnamon along the middle; greater wing-coverts slightly paler than the others; under surface of the wing cinnamon, but the tips of the quills brown and the inner **under wing-coverts black; central pair of rectrices uniform greyish** brown, next two pairs greyish brown, darker towards the tip, the three outer pairs black, with the apical portion white: "irides reddish; legs and feet pale flesh-colour" (*C. C. Taylor*). Total length about 8 inches, wing 3·6, tail 4, bill 0·54, tarsus 0·65.

Female. Similar to the male, only somewhat duller and smaller.

Young. Similar to the adult bird, but with no vinous colour beneath and with browner upper parts, mottled with buffish white near the black edges.

Hab. Rio Grande Valley, Arizona, Lower California, Mexico, and south to Nicaragua.

a. Ad. sk.	La Paz, Lower California.	Salvin-Godman Coll.
b. ♂ ad. sk.	Laredo, Texas (*H. B. Butcher*).	Salvin-Godman Coll.
c. ♂ ad. sk.	Hidalgo, Texas, April (*F. B. Armstrong*).	Salvin-Godman Coll.
d. Ad. sk.	Corpus Christi, Texas, May (*F. B. Armstrong*).	Salvin-Godman Coll.
e,f. ♂ ♀ ad. sk.	Macosari, Sonora, Mexico, Mar. (*J. C. Cahoon*).	Salvin-Godman Coll.
g,h. ♂ ♀ ad. sk.	Rio Mayo, Sonora, Mexico, May (*W. Lloyd*).	Salvin-Godman Coll.
i. ♂ ad. sk.	Guaymas, Mexico, Jan. (*M. A Frazar*).	Salvin-Godman Coll.

k. ♂ ad. sk.	Rio de la Lilla, N. Leon, Mexico, April (*F. B. Armstrong*).	Salvin-Godman Coll.
l. ♂ ad. sk.	San Augustine, N. Leon, Mexico, May (*F. B. Armstrong*).	Salvin-Godman Coll.
m. ♂ ad. sk.	Vagiuria, N. Leon, Mexico, May (*F. B. Armstrong*).	Salvin-Godman Coll.
n–w. ♂ ♀ ad. et imm. sk.	Topo Chico, N. Leon, Mexico, March, April (*F. B. Armstrong*).	Salvin-Godman Coll.
x. ♂ ad. sk.	Tomasachic, Mexico, March (*W. Lloyd*).	Salvin-Godman Coll.
y. ♂ ad. sk.	Santiago, Terr. of Tepic, Mexico, May (*W. B. Richardson*).	Salvin-Godman Coll.
z–d'. ♂ ad. et ad. sk.	Bolaños, Jal., Mexico, Feb., March, July (*W. B. Richardson*).	Salvin-Godman Coll.
e', f', g'. ♀ ad. et ad. sk.	Mazatlan, W. Mexico, Nov. (*Torres, Xanthus, and Grayson*).	Salvin-Godman Coll.
h'–l'. ♂ ♀ ad. et ♀ juv. sk.	Tonila, Jalisco, Mexico, June (*W. Lloyd*).	Salvin-Godman Coll.
m', n'. Ad. sk.	Acapulco, Mexico, Mar., Sept. (*H. H. Smith and Capt. Markham*).	Salvin-Godman Coll.
o'. ♀ ad. sk.	Soledad, State of Guerrero, Mexico, July (*D. W. Smith*).	Salvin-Godman Coll.
p'. ♂ ad. sk.	Puebla, Mexico, Jan.	Tweeddale Coll.
q'–t'. ♂ ♀ ad. sk.	Tampico, Mexico, Feb. (*W. B. Richardson*).	Salvin-Godman Coll.
u', v'. ♀ ad. sk.	Tamesi, near Tampico, Mexico, March (*W. B. Richardson*).	Salvin-Godman Coll.
w'–z'. ♂ ♀ ad. sk.	Aguas Calientes, Mexico, Aug. (*W. B. Richardson*).	Salvin-Godman Coll.
a'', b''. ♂ ♀ ad. sk.	Plains of San Luis Potosi, Mexico, July (*W. B. Richardson*).	Salvin-Godman Coll.
c''. ♂ ad. sk.	Neuvo Laredo, Tamaulipas, Mexico, March (*F. B. Armstrong*).	Salvin-Godman Coll.
d''. ♂ ad. sk.	Aldama, Tamaulipas, Mexico, March (*W. B. Richardson*).	Salvin-Godman Coll.
e''–h''. Ad. et juv. sk.	Sierra Madre del Sur, Mexico (*Mrs. H. H. Smith*).	Salvin-Godman Coll.
i''. ♂ ad. sk.	Chimalpa, Valley of Mexico, Dec. (*Ferrari-Perez*).	Salvin-Godman Coll.
k'', l''. ♂ ad. et ad. sk.	Ixtapalapa, Valley of Mexico, Feb., March (*Ferrari-Perez*).	Salvin-Godman Coll.
m'', n''. ♂ ♀ ad. sk.	Coapa, Valley of Mexico, Mar. (*Ferrari-Perez*).	Salvin-Godman Coll.
o''. ♂ ad. sk.	Culhuacan, Valley of Mexico, Dec. (*Ferrari-Perez*).	Salvin-Godman Coll.
p''. ♀ ad. sk.	Atotonilco, Mexico, Aug. (*Ferrari-Perez*).	Salvin-Godman Coll.
q''. Ad. sk.	Near the City of Mexico.	Salvin-Godman Coll.

r''. ♂ ad. sk.	Putla.	Tweeddale Coll.
s''. ♂ ad. sk.	Presidio, Mexico, Dec. (*A. Forrer*).	Salvin-Godman Coll.
t''. Ad. sk.	La Antigua, Vera Cruz, Mexico, Sept. (*M. Trujillo*).	Salvin-Godman Coll.
u''. ♂ ad. sk.	Plan del Rio, Mexico, July (*Ferrari-Perez*).	Salvin-Godman Coll.
v''. Ad. sk.	Mexico.	Verreaux Coll.
w''. ♀ ad. sk.	Tehuantepec, Mexico, Feb. (*W. B. Richardson*).	Salvin-Godman Coll.
x''. Ad. sk.	Choctum, Vera Paz, Guatemala (*O. Salvin*).	Salvin-Godman Coll.
y''. ♂ ad. sk.	Dueñas, Guatemala, July (*O. S.*).	Salvin-Godman Coll.
z''. ♀ ad. et juv. sk.	San Gerónimo, Vera Paz, Jan. (*O. S.*).	Salvin-Godman Coll.
a^3, b^3. ♂ ♀ ad. sk.	La Libertad, Salvador, Feb. (*W. B. Richardson*).	Salvin-Godman Coll.
c^3, d^3. ♂ ♀ ad. sk.	Chinandega, Nicaragua, May (*W. B. Richardson*).	Salvin-Godman Coll.
e^3. Juv. sk.	El Volcan, Nicaragua, May (*W. B. Richardson*).	Salvin-Godman Coll.

8. GYMNOPELIA.

	Type.
Gymnopelia, *Sclat. & Salv. Nomencl. Av. Neotrop.* p. 156 (1873)	G. erythrothorax.

Range. **The same as that of the only species.**

First primary slightly scooped. Perioptic space broadly naked. Tail short, almost square.

1. Gymnopelia erythrothorax.

Columba erythrothorax, *Meyen* (*nec Temm.*), *Nov. Act. Ac. Leopold.* xvi. Suppl. p. 98, t. xvi. (1833).

Columba monticola, *Tsch.* (*nec Vieill.*) *Faun. Per.* pp. 45, 276 (1844-46).

Columbina erythrothorax, *G. R. Gr. Gen. B.* ii. p. 474, n. 4 (1845); *Rchnb. Tauben*, i. p. 16, t. 253. f. 1408 (1862).

Chamæpelia anais, *Less. Echo du Monde Savant*, 1845, p. 8.

Columba (Chamæpelia) anais, *Less. Descr. Mamm. et Ois.* p. 210 (1847).

Columbina monticola, *Rchnb. Syn. Av.* f. 1408 (1847).

Metriopelia anais, *Bp. Consp. Av.* ii. p. 76 (1854); *id. Compt. Rend.* xl. pp. 23, 220, n. 224 (1855); *id. Coup d'œil Ordre Pig.* pp. 40, 58, n. 224 (1855).

Columbula erythrothorax, *Bp. Consp. Av.* ii. p. 80 (1854); *id. Compt. Rend.* xl. p. 220, n. 237 (1855); *id. Coup d'œil Ordre Pig.* p. 58, n. 237 (1855).

Chamæpelia gymnops, *G. R. Gr. Mus. Brit. fide Bp. Consp. Av.* ii. p. 76 (1854); *id. Compt. Rend.* xl. p. 23 (1855); *id. Coup d'œil Ordre Pig.* p. 40 (1855).

Columbula monticola, *Bp. fide Bp. Consp. Av.* ii. p. 80 (1854).

Metriopelia erythrothorax, *Bp. Compt. Rend.* xl. p. 24 (1855); *id. Coup d'œil Ordre Pig.* p. 41 (1855); *id. Compt. Rend.* xliii. pp. 946, 949 (1856).
Peristera anais, *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 53 (1856).
Metriopeleia anais, *Rchnb. Tauben*, i. p. 18 (1862); *G. R. Gr. Hand-list*, ii. p. 242, n. 9369 (1870).
Chamæpelia anais, *Sclat. P. Z. S.* 1866, p. 100 (Lima); *Gieb. Thes. Orn.* i. p. 633 (1872).
Chamæpelia erythrothorax, *Sclat. & Salv. P. Z. S.* 1867, p. 989, 1868, p. 570, 1869, p. 155; *Gieb. Thes. Orn.* i. p. 633 (1872).
Metriopeleia erythrothorax, *G. R. Gr. Hand-list*, ii. p. 242, n. 9372 (1870).
Gymnopelia erythrothorax, *Sclat. & Salv. Nomencl. Av. Neotrop.* pp. 133, 156 (1873); *Tacz. P. Z. S.* 1874, p. 555; *Gieb. Thes. Orn.* iii. p. 807 (1877); *Salv. Cat. B. Strickl. Coll.* p. 548 (1882); *Tacz. Orn. Pér.* iii. p. 249, Tables, p. 102 (1886); *Sclat. P. Z. S.* 1886, p. 402 (Tarapacá); *Allen, Bull. Am. Mus. N. H.* ii. p. 105 (Bolivia) (1889); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 284 (1890); *James, New List Chil. Birds*, p. 10, n. 172 (1892).

Adult male. Upper parts brown, with the tips of the feathers whitish, the light tips broader on the wing-coverts; head, neck, and upper breast vinous, fading into white along the middle of the throat and into whitish buff on the lower breast, abdomen, and under tail-coverts; bastard-wing, primary-coverts, and quills brown-black, primaries with partial narrow light edges, the secondaries tipped with whitish; under wing-coverts brown-black; two central tail-feathers brown, next two pairs brown towards the base, black on the apical portion, three outer pairs black, tipped with white, the white of the tips increasing towards the outer feathers, which have also the outer webs partly white; a broad naked skin round the eyes yellow or orange, surrounded by a line of black feathers (*W. Nation*): "bill blackish; feet pale flesh-colour; iris blue" (*Taczanowski*); "iris yellowish white" (*Regnoli, Mus. Turin*). Total length about 7·5 inches, wing 4, tail 2·75, bill 0·5, tarsus 0·7.

Female. Similar to the male, but the breast light ashy grey instead of vinous (*Taczanowski*).

Hab. Mountains of Peru, Bolivia, and N. Chili.

a. ♂ ad. sk.	Tinta, Peru, June.	H. Whitely, Esq. [C.].
b. Imm. sk.	Iquique, Peru (*H. Rowland*).	Salvin-Godman Coll.
c. ♀ ad. sk.	Arequipa, S.W. Peru, June (*H. Whitely*).	Salvin-Godman Coll.
d. Ad. sk.	Lima, Peru (*Nation*).	Salvin-Godman Coll.
e, f. Ad. sk.	Bolivia (*Forbes*).	Salvin-Godman Coll.
g, h. Ad. sk. et st.	Bolivia.	T. Bridges, Esq. [C.]. (Type of *Chamæpelia gymnops*, G. R. Gr. ?)
i. ♂ imm. sk.	Prov. of Tarapacá, N. Chili, Jan.	Berkeley James Coll.

Subfamily IV. PERISTERINÆ.

Key to the Genera.

a. Tail longer than half the wing.
  a'. First primary not abruptly attenuated at the tip.
    a''. Central and outer tail-feathers shorter than the intermediate ones; a steel-blue band on the upper wing-coverts ..... 9. COLUMBULA, p. 470.
    b''. Tail rounded; separate metallic spots on the upper wing-coverts.
      *a*³. Tail moderate, shorter than the wing ..... 10. CHAMÆPELIA, p. 472.
      *b*³. Tail much longer than the wing . 11. UROPELIA, p. 489.
  b'. First primary sharply attenuated at the tip.
    c''. Tail longer than the wing ..... 12. OXYPELIA, p. 490.
    d''. Tail shorter than the wing ..... 13. PERISTERA, p. 491.
b. Tail short, about half the length of the wing; under tail-coverts black ..... 14. METRIOPELIA, p. 497.

9. COLUMBULA.

Type.

Columbina, *Spix, Av. Bras.* ii. p. 57 (1825) ..... C. picui.
Columbula, *Bp. Consp. Av.* ii. p. 80 (1854); *id. Compt. Rend.* xl. p. 22 (1855) ..... C. picui.

Range. Confined to South America.

1. Columbula picui.

Paloma picui, *Azara, Apunt.* i. p. 23, n. 324 (1805).
Le Picui, *D'Azara, Voy. Am. Mérid.* (*ed. Sonn.*) iii. p. 136, n. 324 (1809).
Columba picui, *Temm. Pig. et Gallin.* i. pp. 435, 498 (1813) (*ex D'Azara*); *Vieill. N. D.* xxvi. p. 383 (1818); *id. Enc. Méth.* i. p. 385 (1823); *Desm. Dict. Sc. Nat.* xl. p. 310 (1826); *Wagl. Syst. Av.* Columba, sp. 87 (1827); *Less. Compl. de Buff., Ois.* viii. p. 13 (1837); *id. op. cit.* 2nd ed. ii. p. 272 (1840); *Knip & Prév. Pig.* ii. p. 71, pl. 39 (1838–43).
Goura picui, *Steph. Gen. Zool.* xi. p. 135 (1819).
Columbina strepitans, *Spix, Av. Bras.* ii. p. 57, t. lxxv. f. 1 (1825); *Fraser, P. Z. S.* 1843, p. 115 (Chili, Mendoza); *G. R. Gr. Gen. B.* ii. p. 474, n. 2 (1845); *Yarrell, P. Z. S.* 1847, p. 53 (egg); *Rchnb. Syn. Av.* f. 1405 (1847) (*ex Spix*); *Hartl. Naumannia*, 1853, p. 221 (Chili); *Rchnb. Tauben*, i. p. 16, t. 253. f. 1405 (1862); *Pelz. Novara Reise, Voy.* p. 109 (egg) (1865).
Columba strepitans, *Wagl. Syst. Av.* Columba, sp. 109 (1827); *Less. Compl. de Buff., Ois.* viii. p. 61 (1837); *id. op. cit.* 2nd ed. p. 285 (1838).
Chæmepelia picui, *Selb. Natural. Libr., Pigeons*, p. 201 (1835).
Chamæpelia strepitans, *Hartl. Syst. Verz.* p. 99 (1844); *Gieb. Thes. Orn.* i. p. 636 (1872).

Columbina picui, *G. R. Gr. List of Gallinæ B. M.* p. 13 (1844); *id. Gen. B.* ii. p. 474, n. 1 (1845); *Hartl. Ind. Apunt. Azar.* p. 21, n. 324 (1847); *Rchnb. Syn. Av.* Columbariæ, *Novit.* t. 253 *b.* ff. 3377–78 (1851); *id. Av. Syst. Nat.* p. xxiv (1852); *id. Tauben*, i. p. 17, t. 253 *b.* ff. 3377–78 (1862), ii. p. 163 (1862).

Columbula strepitans, *Bp. Consp. Av.* ii. p. 80 (1854); *id. Compt. Rend.* xl. pp. 23, 220, n. 236 (1855); *id. Coup d'œil Ordre Pig.* pp. 39, 58, n. 236 (1855); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 45 (1856); *Burm. Syst. Ueb. Th. Bras., Vögel*, p. 299 (1856); *Sclat. P. Z. S.* 1867, pp. 330, 339; *G. R. Gr. Hand-list*, ii. p. 240, n. 9344 (1870); *Pelz. Orn. Bras.* pp. 276 (note), 450 (1871); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 21 (1873).

Columbula picui, *Bp. Consp. Av.* ii. p. 80 (1854); *id. Compt. Rend.* xl. pp. 23, 220, n. 238 (1855); *id. Coup d'œil Ordre Pig.* pp. 39, 58, n. 238 (1855); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 46 (1856); *Burm. Syst. Ueb. Th. Bras., Vög.* ii. p. 300 (1856); *id. J. f. O.* 1860, p. 259; *id. La-Plata Reise*, ii. p. 496 (1861) (Mendoza, Paraná, Tucuman); *Sclat. & Salv. P. Z. S.* 1868, p. 143 (Conchitas); *Sternberg, J. f. O.* 1869, p. 273 (Buenos Ayres); *Holtz, J. f. O.* 1870, p. 19 (egg); *G. R. Gr. Hand-list*, ii. p. 240, n. 9344 (1870); *Pelz. Orn. Bras.* pp. 276, 451, liv (1871); *Sclat. & Salv. Nomencl. Av. Neotrop.* p. 133 (1873); *Durnf. Ibis*, 1876, p. 163 (Buenos Ayres), 1877, p. 193; *Sclat. & Salv. P. Z. S.* 1879, p. 640 (Bolivia); *Gibson, Ibis*, 1880, p. 7; *Durnf. Ibis*, 1880, p. 418; *White, P. Z. S.* 1882, p. 626; *Barrows, Auk*, 1884, p. 275 (Lower Uruguay); *Boeck, Mitth. orn. Ver. Wien*, 1884, p. 165; *Gibs. Ibis*, 1885, p. 282; *Berl. & Jher. Zeitsch. d. ges. Orn.* 1855, p. 176 (Rio Grande do Sul); *Berl. J. f. O.* 1887, p. 124; *Withington, Ibis*, 1888, p. 465; *Sclat. Argent. Orn.* ii. p. 143 (1889); *Holl. & Sclat. Ibis*, 1891, p. 16; *Hartert, Kat. Vogelsamml.* p. 187 (1891); *Frenzel, J. f. O.* 1891, p. 123; *Holland, Ibis*, 1892, p. 209; *James, New List Chil. Birds*, p. 10, n. 170 (1892).

Chamæpelia picui, *Gieb. Thes. Orn.* i. p. 635 (1872).

Peristera picui, *Schleg. Mus. P.-B.* Columbæ, p. 137 (1873).

Adult male. Above brownish cinereous, forehead almost white; occiput and nape pure grey; beneath pale vinaceous, becoming white on the throat, lower belly, and crissum; inner upper wing-coverts like the back, the outer ones paler, and these, together with the inner secondaries, bordered with white on the outer webs; on the lesser wing-coverts a narrow band of steel-blue; quills, primary-coverts, bastard-wing, and under wing-coverts black; four or six central tail-feathers like the back, the next two pairs white, edged with brownish grey on the outer webs, the outer feathers entirely white: bill black; "iris lilac" (*White*); feet purple-red. Total length about 7 inches, wing 3·6, tail 3·3, bill 0·45, tarsus 0·65.

Female. Similar, but duller; above nearly uniform brown; breast pale brown with no vinous tinge.

Hab. S. Brazil, Paraguay, Argentine, Chili, and Bolivia.

An adult specimen, apparently a female, from Ceará, N. Brazil, mentioned below, is much lighter than any other I have seen.

a. Ad. sk.	Paraguay.	Alan Peel, Esq. [P.]
b. Ad. sk.	Buenos Ayres, Dec.	H. Durnford, Esq. [O.]
c. Ad. sk.	Rio Negro.	

d. Ad. sk.	Mendoza (*Weisshaupt*).	Salvin-Godman Coll.
e, f. ♂ ♀ ad. sk.	Sorata, Bolivia (*Buckley*).	Salvin-Godman Coll.
g. Ad. sk.	Bolivia.	Purchased.
h, i. ♂ ad. sk. et st.	Chili.	J. Bridges, Esq. [C.].
k, l. ♂ imm. sk.	Prov. Santiago, Chili (*Leybold*).	Salvin-Godman Coll.
m, n, o. Ad. sk.	Central Chili.	Berkeley James Coll.
p, q. ♀ ad. et ♂ imm. sk.	Chapada, Matto Grosso, Sept., Oct. (*H. H. Smith*).	Salvin-Godman Coll.
r. ♀ ad. sk.	Cuyaba, Brazil (*Natterer*).	Salvin-Godman Coll.
s. ♀ ad. sk.	Villa Maria, Brazil, Sept. (*Natterer*).	Salvin-Godman Coll.
t. ♂ imm. sk.	Ceará, North Brazil (*Jesse*).	Salvin-Godman Coll.
u. Ad. sk.		C. Darwin, Esq. [P.].

10. CHAMÆPELIA.

	Type.
Columbigallina, *Boie* *, *Isis*, 1826, p. 977	C. passerina.
Chæmepelia, *Sw. Zool. Journ.* iii. p. 361 (1827)	C. passerina.
Columbina, *G. R. Gr. List Gen. B.* p. 58 (1840) (*nec Spix*, 1825)	C. passerina.
Chamæpelia, *G. R. Gr. List Gen. B.* 2nd ed. p. 75 (1841).	
Chamæpeleia, *Rchnb. Av. Syst. Nat.* p. xxiv (1852).	
Talpacotia, *Bp. Consp. Av.* ii. p. 79 (1854)	C. talpacoti.
Pyrgitœnas, *Rchnb. Tauben*, i. p. 14 (1862)	C. passerina.
Leptopelia, *Heine, Nomencl. Mus. Hein. Orn.* p. 283 (1890)	C. talpacoti.

Range. From Southern United States and Mexico through Central America to South America, as far south as N. Chili and Paraguay.

Key to the Species.

a. Tarsus entirely naked (*Chamæpelia*).
  a'. Under surface of the wings cinnamon.
    a''. Breast-feathers dark in the centre, producing a scale-like appearance ..... *passerina*, p. 473.
    b''. Breast-feathers uniform; pale vinous in the male, pale brown in the female ..... *minuta*, p. 481.
  b'. Under surface of the wings not cinnamon, but brown-grey, with the innermost under wing-coverts black; a chestnut band on the upper wing-coverts; male vinous below, female pale earthy grey ..... *cruziana*, p. 483.
b. Sides of the tarsus feathered (*Talpacotia*).
  c'. Under surface of the wing not cinnamon; under wing-coverts entirely black.
    c''. General plumage vinous, similar to that of *C. minuta* ..... *buckleyi*, p. 484.
    d''. Genera lplumage brown-vinous red ..... *talpacoti*, p. 485.
  d'. Under surface of the wing cinnamon, but the innermost under wing-coverts black ..... *rufipennis*, p. 487.

* *Columbigallina*, Boie, a long, badly constructed name, without generic characters, ought not to supersede *Chamæpelia*. Sw.

1. Chamæpelia passerina.

Turtur minimus guttatus, *Sloane, Jam.* ii. p. 305, t. 261. f. 3 (1705–25); *Catesb. Carol.* i. p. 23, t. 23 (1754).

Turtur parvus americanus, *Briss. Orn.* i. p. 113, pl. ix. f. 1 (1760).

Columba passerina, *Linn. S. N.* i. p. 285, n. 34 (1766); *Jacq. Beytr.* p. 32, n. 26 (1784); *Gm. S. N.* i. 2, p. 787, n. 34 (1788) *; *Lath. Ind. Orn.* ii. p. 611, n. 67 (1790); *Bonn. Tabl. Enc. Orn.* p. 252 (1790); *Temm. & Knip, Pig.* i. fam. trois. pls. 13, 14 (1808–11); *Wils. Amer. Orn.* iv. p. 15, pl. 46. f. — (1811); *Temm. Pig. et Gallin.* i. pp. 425, 497 (1813); *Vieill. N. D.* xxvi. p. 401 (1818); *Vieill. Gal. Ois.* i. p. 333, pl. 196 (1825); *Desm. Dict. Sc. Nat.* xl. p. 308 (1826); *Wagl. Syst. Av.* Columba, sp. 88 (1827); *Bp. Syn.* p. 120 (1828); *Less. Tr. d'Orn.* p. 474 (1831); *Nutt. Man.* i. p. 365 (1832); *Fras. P. Z. S.* 1834, p. 110 (Haiti); *Audub. Orn. Biogr.* ii. p. 471 (1834); *Less. Compl. de Buff., Ois.* viii. p. 12 (1837); *id. op. cit.* 2nd ed. p. 272 (1838); *Audub. Orn. Biogr.* v. p. 558, pl. 182 (1839); *id. Syn.* p. 192 (1839); *D'Orb. in La Sagra's Hist. Nat. Cuba, Ois.* p. 129 (large ed. p. 131) (1839); *Temm. Pl. Col.* i. *Tabl. Méth.* p. 81 (1840); *Aud. B. Amer.* v. p. 19, pl. 283 (1842); *Denny, P. Z. S.* 1847, p. 38 (Jamaica, Cuba, Un. States); *Schomb. Guiana Reis.* p. 747, n. 335 (1848); *Sundev. Œfv. Vet.-Akad. Förh.* 1869, pp. 586, 601 (San Bartholomew).

Petite Tourterelle de St. Dominique, *D'Aubent. Pl. Enl.* 243. f. 1.

Cocotzin, *Buff. Hist. Nat. Ois.* ii. p. 559 (part.?) (1771).

Ground Dove, *Lath. Gen. Syn.* ii. 2, p. 659 (1783); *id. Suppl.* p. 200 n. 59 (1787).

Goura passerina, *Steph. Gen. Zool.* xi. p. 133 (1819), xiv. p. 296 (1826).

Columba (Goura) passerina, *Bp. Obs. Wils.* p. 181 (1825).

Columbigallina passerina, *Boie, Isis*, 1826, p. 977; *Zeledon, Pr. U.S. Nat. Mus.* viii. p. 112 (1885); *Ridgw. ibid.* p. 581 (1885) (Cozumel Isl.); *Cory, Ibis*, 1886, pp. 472 (Barbadoes), 474 (Desirade); *id. Auk*, iii. p. 502 (1886); *A. O. U. Code of Nomencl. etc.* p. 181 (1886); *Wells, Pr. U.S. Nat. Mus.* 1886, p. 625 (Grenada); *id. List B. Grenada*, p. 7 (1886); *Ridgw. Man. N. Am. B.* pp. 215, 585 (1887); *Cory, Auk*, 1887, p. 116; *Allen, Bull. Am. Mus. N. H.* ii. p. 79 (1889) (Quito); *Cory, B. W. Ind.* p. 217 (1889); *Berl. J. f. O.* 1892, pp. 97, 102; *Allen, Bull. Am. Mus. N. H.* iv. p. 56 (1892) (Venezuela); *Cory, Auk*, 1892, p. 48 (Maraguana); *Scott, Auk*, 1892, pp. 124 (Jamaica), 212; *Attwater, Auk*, 1892, p. 233 (Texas); *Cherrie, Auk*, 1892, p. 329 (Costa Rica); *Bendire, Life-Hist. N. A. Birds*, p. 148 (1892).

Chæmepelia passerina, *Sw. Zool. Journ.* iii. p. 361 (1827); *Selb. Nat. Libr., Pigeons*, p. 202 (1835); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 49 (1856); *id. Hand-list*, ii. p. 239, n. 9336 (1870).

Columba pusilla, *Mus. Berol.*; *Licht. Preis-Verz. Mexic. Vög. etc.* p. 3, n. 126 (1830); *id. J. f. O.* 1863, p. 58.

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* Quid:—1. Columba passerina, var. β (maculis panciasimis), *Gm. S. N.* i. 2, p. 788 (1788)?

2. Columba passerina, var. γ (oculis spadiceis, colli pectorisque pennis diversicoloribus), *Gm. ibid.*?

3. Columba passerina, var. δ (oculis spadiceis, corpore magis rubescente), *Gm. ibid.*?

Chamepelia passerina, *Bp. Comp. List*, p. 41 (1838).
Columbina passerina, *G. R. Gr. List Gen. B.* p. 58 (1840).
Chamæpelia passerina, *G. R. Gr. List Gen. B.* 2nd ed. p. 75 (1841); *Hartl. Syst. Verz.* p. 99 (1844); *id. Gen. B.* ii. p. 475, n. 1 (1845); *Tsch. Faun. Per.* pp. 45, 275 (1844–46); *Gosse, B. Jam.* p. 311 (1847); *Rchnb. Syn. Av.* ff. 1419–20 (1847); *Cab. in Schomb. Guiana*, p. 743 (1848); *Gosse, Nat. Soj. in Jam.* p. 173 (1851); *Rchnb. Syst. Av.* Columbariæ, *Novit.* t. 266. ff. 2875–78 (1851); *Bp. Consp. Av.* ii. p. 77 (1854); *id. Compt. Rend.* xl. pp. 20, 220, n. 227 (1855); *id. Coup d'œil Ordre Pig.* pp. 37, 58, n. 227 (1855); *Burm. Syst. Ueb. Th. Bras., Vög.* ii. p. 296 (1856); *Gundl. J. f. O.* 1856, p. 111 (Cuba); *Sclat. P. Z. S.* 1857, p. 205 (S. Andres Tuxtla, Mexico); *Sallé, P. Z. S.* 1857, p. 236 (San Domingo); *Baird, B. N. Am.* p. 606 (1858); *Sclat. P. Z. S.* 1859, pp. 369 (Jalapa), 391 (Oaxaca); *Sclat. & Salv. Ibis*, 1859, p. 223 (Centr. Amer.); *Bryant, Pr. Bost. Soc. Nat. Hist.* vii. p. 120 (1859); *Brewer, t. c.* p. 307 (1860); *Sclat. & Salv. Ibis*, 1860, p. 45 (Guatemala); *Coues & Prent. Smiths. Rep.* 1861, p. 414; *Sclat. P. Z. S.* 1861, p. 80; *Albrecht, J. f. O.* 1861, p. 55, 1862, p. 204; *Gundl. J. f. O.* 1861, p. 336; *Taylor, Ibis*, 1862, p. 129 (Florida); *March, Pr. Philad. Acad.* 1863, p. 302 (Jamaica); *Sclat. P. Z. S.* 1864, p. 178 (Mexico); *Dress. Ibis*, 1865, p. 313 (Texas), 1866, p. 24; *Bryant, Pr. Bost. Soc. Nat. Hist.* xi. p. 96 (1866) (Porto Rico); *Coues, Pr. Philad. Acad.* 1866, p. 93 (Southern Arizona); *Sclat. & Salv. P. Z. S.* 1867, p. 591 (Para); *Baird, Ibis*, 1867, pp. 276, 287, 289 (Bahamas, Cuba, Jamaica, Bermudas); *Lawr. Ann. Lyc. N. Y.* ix. p. 139 (1868) (Costa Rica), p. 207 (1869) (Yucatan); *Frantz. J. f. O.* 1869, p. 371; *Sundev. Öfv. K. Vet.-Ak. Förh.* 1869, pp. 586, 601; *Coop. B. Calif.* p. 516 (1870); *Wyatt, Ibis*, 1871, p. 383 (Santa Marta); *Pelz. Orn. Bras.* pp. 277, 450, liv (1871) (Brazil); *Gieb. Thes. Orn.* i. p. 635 (1872); *Coues, Key N. Am. B.* p. 226 (1872); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 20 (1873); *Layard, Ibis*, 1873, p. 395 (Para); *Sclat. & Salv. Nomencl. Av. Neotrop.* p. 133, n. 1 (1873); *Sclat. P. Z. S.* 1874, p. 175 (Barbadoes, W. Indies); *Baird, Brew., & Ridgw. Hist. N. Am. B.* iii. p. 389, pl. 58. f. 6 (1874); *Lawr. Bull. U.S. Nat. Mus.* n. 4, p. 44 (1876); *Gundl. J. f. O.* 1874, pp. 296 (Cuba), 308, 313 (Porto Rico); *Coues, B. North-West*, p. 390, note (1874); *Boucard, P. Z. S.* 1878, p. 43 (Costa Rica); *Gundl. An. Soc. Esp. Hist. Nat.* vii. p. 349 (1878); *id. J. f. O.* 1878, pp. 161, 186 (Porto Rico); *Lawr. Pr. U.S. Nat. Mus.* i. p. 487 (1878); *Sanchez, An. Mus. Nac. Mexico*, i. p. 105 (1878); *Lister, Ibis*, 1880, p. 43 (St. Vincent); *Allen, Bull. Nutt. Orn. Club*, v. p. 169 (1880); *Schmidt, P. Z. S.* 1880, p. 314; *Cory, B. Bahama I.* p. 139 (1880); *Maynard, B. E. N. Am.* p. 340 (1881); *Sumichrast, Naturaleza*, v. p. 231, n. 29 (1881); *A. & E. Newt. Handb. Jamaica*, p. 114 (1881); *Cory, Bull. Nutt. Orn. Club*, vi. p. 154 (1881); *Salv. Cat. B. Strickl. Coll.* p. 547 (1882); *Sclat. List Vert. An.* 8th ed. p. 456 (1883); *Tristr. Ibis*, 1884, p. 168 (San Domingo); *Coues, Key N. Am. B.* p. 569 (1884); *Ridgw. Pr. U.S. Nat. Mus.* vii. p. 172 (1884) (I. of St. Thomas); *Berl. J. f. O.* 1884, p. 317 (New Granada); *Boeck, Mitth. orn. Ver. Wien*, 1884, p. 165; *Tacz. & Berl. P. Z. S.* 1885, p. 111 (Ecuador); *Tacz. Orn. Pér.* iii. p. 242, tabl. p. 102 (1886); *Salv. Ibis*, 1886, pp. 173, 509, 1889, p. 377; *Feild. ibid.* pp. 480, 490 (Barbadoes); *Sclat. P. Z. S.* 1889, pp. 326 (Dominica), 395 (Sta. Lucia); *Tristr. Cat. Coll. B.* p. 39 (1889); *Salv. Ibis*, 1890, p. 89; *Hein. & Rchnw.*

Nomencl. Mus. Hein. Orn. p. 283 (1890); *Hartert, Kat. Vogelsamml.* p. 186 (1891); *Peters, J. f. O.* 1892, p. 113; *Sclat. P. Z. S.* 1892, p. 500 (Anguilla).

Chamæpelia hortulana, *Württ. Naumannia*, 1852, 2, p. 56 (Haiti).

Chamæpeleia passerina, *Rchnb. Av. Syst. Nat.* p. xxiv (1852).

Chamæpelia granatina, *Bp. Consp. Av.* ii. p. 77, n. 2 (Bogota, *Mus. Paris**); *id. Compt. Rend.* xl. pp. 21, 220, n. 228 (1855); *id. Coup d'œil Ordre Pig.* pp. 37, 38, 58, n. 228 (1855); *Sclat. P. Z. S.* 1855, p. 163 (= ♀ sive jr. *Ch. passerinæ* ?); *Bp. Compt. Rend.* xliii. p. 945 (1856); *Burm. Syst. Ueb. Th. Bras., Vög.* ii. p. 296 (1856); *Sclat. P. Z. S.* 1858, p. 556 (Riobamba, Ecuador); *Cass. Pr. Ac. Nat. Sc. Philad.* 1860, p. 195 (Carthagena); *Lawr. Ann. Lyc. N. Y.* vii. p. 333 (1862) (Panama); *Tristr. Cat. Coll. B.* p. 39 (1889); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 283 (1890).

Chamæpelia albivitta, *Bp. Consp. Av.* ii. p. 77, n. 3 (1854) (Carthagena) (type examined); *id. Compt. Rend.* xl. pp. 21, 220, n. 229 (1855); *id. Coup d'œil Ordre Pig.* pp. 37, 38, 58, n. 229 (1855); *Burm. Syst. Ueb. Th. Bras., Vög.* ii. p. 296 (1856); *Tayl. Ibis*, 1864, p. 94 (Chacachacare, Trinidad); *Finsch, P. Z. S.* 1870, p. 554; *G. R. Gr. Hand-list*, ii. p. 240, n. 9340 (1870); *Gieb. Thes. Orn.* i. p. 632 (1872).

Chamæpelia trochila, *Bp. Consp. Av.* ii. p. 77, n. 4 (1854) (Martinica, *Rousseau, Mus. Paris*) (type examined); *id. Compt. Rend.* xl. pp. 21, 220, n. 230 (1855); *id. Coup d'œil Ordre Pig.* pp. 37, 38, 58, n. 230 (1855); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 50 (1856) (Barbadoes); *Burm. Syst. Ueb. Th. Bras., Vög.* ii. p. 296 (1856); *A. & E. Newt. Ibis*, 1859, pp. 253, 375, 377 (St. Croix, St. Thomas, Jamaica); *Cass. Proc. Ac. Nat. Sc. Philad.* 1860, p. 378; *Sclat. P. Z. S.* 1861, p. 80; *id. Ibis*, 1862, p. 289 (Martinica); *Taylor, Ibis*, 1864, p. 171 (Porto Rico, St. Thomas); *G. R. Gr. Hand-list*, ii. p. 240, n. 9337 (1870); *Sclat. P. Z. S.* 1871, p. 266 (Santa Lucia); *Sclat. & Semper, P. Z. S.* 1872, p. 653 (Sta. Lucia); ? *Sousa, Mus. Nac. Lisb.* Columbæ, p. 20 (1873).

? Chamæpelia pumila, *Licht. Nomencl.* p. 83 (1854) (Brazil).

Chamæpelia pusilla, "*Licht.*," *Bp. Compt. Rend.* xliii. p. 945 (1856).

Chamæpelia passerina, var. pallescens, *Baird, Pr. Philad. Acad.* 1859, p. 305 (Cape St. Lucas); *Cooper, Ornith. Calif.* p. 517 (1870).

Pyrgitœnas passerina, *Rchnb. Tauben*, i. p. 13, t. 256. ff. 1419–20, t. 260. ff. 2875–78, ii. p. 162 (1862).

Pyrgitœnas granatina, *Rchnb. Tauben*, i. p. 14, ii. p. 162 (1862).

Pyrgitœnas albivitta, *Rchnb. Tauben*, i. p. 14 (1862).

Pyrgitœnas trochila, *Rchnb. Tauben*, i. p. 14 (1862).

Columba (Chamæpelia) passerina, *Bryant, Pr. Bost. Soc. N. H.* x. p. 257 (1866).

Chamæpelia pallescens, *Grays. Pr. Bost. Soc. N. H.* xiv. p. 300 (1871); *Lawr. Mem. Bost. Soc. N. H.* ii. p. 305 (1874); *Sanchez, An. Mus. Nac. Mexico*, i. p. 105, n. 497 (1878) (Mazatlan, Tres Marias Isl.).

Peristera passerina, *Schleg. Mus. P.-B.* Columbæ, p. 135 (1873).

Columbigallina passerina pallescens, *F.-Perez, Pr. U.S. Nat. Mus.*

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* I have not been able to find the type of *Ch. granatina* in the Paris Museum, where it is apparently missing.

ix. p. 175 (1886); *Ridgw. Man. N. Am. Birds*, p. 586* (1887); *Bendire, Life-Hist. N. Am. B.* p. 150 (1892).

Chamæpelia bahamensis, *Maynard, Am. Exch. and Mart*, iii. 1887, p. 33; *Chapman, Bull. Am. Mus. N. H.* iv. p. 292 (1892).

Chamæpelia purpurea, *Maynard, Am. Exch. and Mart*, iii. 1887, p. 33 (Continental race, E. N. America); *Chapm. Bull. Am. Mus. N. H.* iv. p. 293 (1892).

Columbigallina passerina socorrensis, *Ridgw. Man. N. Am. Birds*, p. 586 (1887) (Socorro Isl., Tres Marias?) †.

Columbigallina passerina bahamensis, *Ridgw. ibid.* (Bahamas, Greater Antilles?) ‡.

Columbigallina passerina insularis, *Ridgw. Pr. U.S. Nat. Mus.* 1887, pp. 574, 575 (I. of Grand Cayman, Caribbean Sea) §; *Berl. J. f. O.* 1892, p. 98 (=true *passerina*).

Columbigallina passerina purpurea, *Berl. J. f. O.* 1892, p. 97.

Columbigallina passerina, subsp., *Chapm. Bull. Am. Mus. N. H.* iv. p. 292 (1892) (Cuba).

Columbigallina passerina terrestris, *Chapm. Bull. Am. Mus. N. H.* iv. p. 293 (1892) (E. N. America).

Adult male. Back, rump, upper tail-coverts, scapulars, tertials and central tail-feathers greyish or olive-brown; forehead, sides of the head and neck, breast and abdomen purplish red or bright vinous, paler on the forehead and middle of the throat; occiput and nape bluish grey, the feathers edged with dusky have a scale-like appearance, also the feathers of the sides of the neck have dusky edges; feathers of the lower throat and upper breast dusky brown in the centre, having a most conspicuous scale-like appearance; flanks dusky; middle of the abdomen and basal under tail-coverts whitish, the longer ones dusky; upper wing-coverts purplish vinous; the exposed surface of the wing marked with blotches of a steel-blue with violet reflections; under wing-coverts, axillaries, and quills cinnamon, the latter margined externally and tipped with dusky brown, the inner secondaries and outer greater wing-coverts almost entirely of this colour; central tail-feathers like the back; the

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* "Much paler than *C. passerina*, with rather longer wings and much smaller and more slender bill, the latter often (always in fully adult males?) red basally: wing 3·30–3·60 (3·46) inches, exposed culmen 0·42–0·47 (0·44), tarsus 0·60–0·66 (0·62).

"*Hab.* South-western United States (Texas to Arizona and Lower California), and south through Mexico (both coasts) to Central America." (*Ridgway.*)

† "Back and rump deep olive-brown, plumage in general much deeper than in true *C. passerina*: wing 3·10–3·40 (3·28) inches, exposed culmen 0·41–0·44 (0·42), tarsus 0·60–0·63 (0·62).

"*Hab.* Socorro Islands, Western Mexico, Tres Marias?" (*Ridgway.*)

‡ "Similar in colour of plumage to *C. passerina pallescens*, but still paler, with upper parts more ashy; bill chiefly or entirely black or dusky (rarely yellowish or orange at base): wing 3·13–3·30 (3·21) inches, exposed culmen 0·40–0·47 (0·43), tarsus 0·60–0·64 (0·62).

"*Hab.* Bahamas, Greater Antilles?" (*Ridgway.*)

§ "Similar to *C. passerina bahamensis* (Mayn.), but larger and with basal half (or more) of bill distinctly orange or yellowish.

"*Hab.* Island of Grand Cayman, Caribbean Sea." (*Ridgway.*)

others greyish at the base, black at the end, and with a brown edge at the tip, the outer one tipped with white: "bill and feet yellow, the former tipped with brown" (*Baird*): "beak purplish black; iris bright red; legs flesh-colour" (*Dresser*). Total length 6·3 inches, wing 3·5, tail 2·8, bill 0·42, tarsus 0·55.

Female. With little or none of the purplish red.

Young. "Duller than the adult female; the feathers of the upper parts with a narrow terminal bar of white." (*Baird, Brewer, & Ridgway.*)

Hab. South Atlantic and Gulf States, Texas, New Mexico, Arizona, and California, south to the West Indies, and through Central America to South America, as far as Peru and Paraguay.

Chamæpelia passerina shows a good deal of individual variation, and also according to locality, and these varieties have been regarded as distinct subspecies or even species, and named accordingly. After having examined a very large series of specimens from different localities, from Southern United States, California, Central America, Antilles, and South America, as far south as Peru and Paraguay, I have arrived at the conclusion that there is only one species, which, probably on account of the different conditions of the soil, dampness, vegetation, and climate, varies a little in the depth and intensity of the vinous tinge and also of the brown back; the most intense form seems to inhabit the Socorro Islands, but the Jamaica birds also appear to be rather brightly coloured. The American ornithologists lay much stress on the different colouring of the base of the bill, a character which I have been unable to test, and which almost entirely fails as regards the South American specimens, for want of information.

a. ♂ ad. sk.	N. America.	Hardwicke Bequest.
b, c. ♂ ♀ ad. sk.	Beaufort Co., S. C., Aug., Sept. (*W. Hoxie*).	Salvin-Godman Coll.
d. ♀ ad. sk.	Arizona, May (*F. Stephens*).	Sharpe Coll.
e, f, g. ♂ ♀ ad. et ♂ imm. sk.	Camp Lowell, Arizona (*H. W. Henshaw*).	Salvin-Godman Coll.
h, i. Juv. sk.	Tucson, Arizona, Sept. (*H. Brown*).	Salvin-Godman Coll.
k–p. ♂ ♀ ad. sk.	Brownsville, Texas, March, April, Dec. (*F. B. Armstrong*).	Salvin-Godman Coll.
q. ♂ ad. sk.	Cameron Co., Texas, April (*F. B. Armstrong*).	Salvin-Godman Coll.
r. ♂ ad. sk.	Hidalgo, Texas, April (*F. B. Armstrong*).	Salvin-Godman Coll.
s, t. ♀ ad. sk.	Corpus Christi, Texas, Feb., March (*F. B. Armstrong*).	Salvin-Godman Coll.
u–x'. ♂ ♀ ad. et juv. sk.	Tarpon Springs, Florida, April, May, Aug., Sept., Oct. (*W. E. D. Scott*).	Salvin-Godman Coll.
y'. ♀ ad. sk.	St. Augustine, Florida, Feb. (*G. A. Boardman*).	Salvin-Godman Coll.
z'. ♂ ad. sk.	Titusville, Florida, Aug. (*W. Hoxie*)	Salvin-Godman Coll.

a'', b''. ♂ ♀ ad. sk.	Cedar Keys, Florida, Nov. (*H. W. Henshaw*).	Salvin-Godman Coll.
c''. ♂ ad. sk.	California.	Salvin-Godman Coll.
d''. ♂ ad. sk.	San Jose del Cabo, Lower California, Sept.	Salvin-Godman Coll.
e'', f''. ♂ ad. sk.	La Paz, Lr. California, Feb., March (*Forrer & Frazar*).	Salvin-Godman Coll.
g'', h''. ♂ ♀ ad. sk.	La Paz, Lr. California, April, Nov.	A. Forrer, Esq. [C.].
i''. ♂ ad. sk.	Cape San Lucas, California (*J. Xantus*).	Salvin-Godman Coll.
k'', l''. ♂ ad. sk.	Matamoros, Mexico, July (*H. E. Dresser*).	Salvin-Godman Coll.
m'', n''. ♂ ♀ ad. sk.	Sonora, Mexico, Feb., May (*J. C. Cahoon*).	Salvin-Godman Coll.
o'', p''. ♂ ♀ ad. sk.	Sta. Rosa, Sonora, Mexico, April (*W. Lloyd*).	Salvin-Godman Coll.
q''–v''. ♂ ♀ ad. sk.	Monte Morelas, N. Leon, Mexico, May (*F. B. Armstrong*).	Salvin-Godman Coll.
w''. ♂ ad. sk.	Hacienda de Los Escobas, May (*F. B. Armstrong*).	Salvin-Godman Coll.
x'', y'', z''. ♂ ad. sk.	San Blas, Ter. of Tepic, Mexico, May (*W. B. Richardson*).	Salvin-Godman Coll.
a^3. ♀ ad. sk.	Zapotlan, Jalisco, Mexico, April (*W. Lloyd*).	Salvin-Godman Coll.
b^3. ♀ ad. sk.	Chapala, Jalisco, Mexico, Aug. (*W. B. Richardson*).	Salvin-Godman Coll.
c^3. ♀ ad. sk.	Chilpancingo, 4000 feet, Guerrero, Mexico, Aug. (*D. W. Smith*).	Salvin-Godman Coll.
d^3. ♀ ad. sk.	Chietla, Chiantla, Mexico, June (*Ferrari-Perez*).	Salvin-Godman Coll.
e^3, f^3. ♂ ad. sk.	Tampico, Mexico, Feb. (*W. B. Richardson*).	Salvin-Godman Coll.
g^3, h^3. ♂ ♀ ad. sk.	Tamesi, Tampico, Mexico, March (*W. B. Richardson*).	Salvin-Godman Coll.
i^3, k^3. ♂ ♀ ad. sk.	Sota la Marina, Tamaulipas, Mexico, April (*W. B. Richardson*).	Salvin-Godman Coll.
l^3, m^3. ♂ ad. sk.	Aldama, Tamaulipas, Mexico, March (*W. B. Richardson*).	Salvin-Godman Coll.
n^3. ♂ ad. sk.	Sierra Madre, above Ciudad Victoria, Tamaulipas, April (*W. B. Richardson*).	Salvin-Godman Coll.
o^3. ♂ ad. sk.	Epatlan, Canton de Matamoros, Mexico, Nov. (*Ferrari-Perez*).	Salvin-Godman Coll.
p^3. ♂ ad. sk.	Chimalpa, Valley of Mexico, Feb. (*Ferrari-Perez*).	Salvin-Godman Coll.
q^3. ♀ ad. sk.	Axotla, Valley of Mexico, March (*Ferrari-Perez*).	Salvin-Godman Coll.
r^3. ♂ ad. sk.	Coapa, Valley of Mexico, Feb. (*Ferrari-Perez*).	Salvin-Godman Coll.
s^3. ♂ ad. sk.	Mexicalcingo, Valley of Mexico, Feb. (*F.-Perez*).	Salvin-Godman Coll.

t^3. ♂ ad. sk.	Ixtapalapa, Valley of Mexico, Dec. (*Ferrari-Perez*).	Salvin-Godman Coll.
w^3. ♂ juv. sk.	Culhuacan, Valley of Mexico, Feb. (*Ferrari-Perez*).	Salvin-Godman Coll.
v^3. ♀ juv. sk.	Coatepec, Vera Cruz, Mexico, Sept. (*Ferrari-Perez*).	Salvin-Godman Coll.
w^3, x^3. ♂ ♀ imm. sk.	Vera Cruz, Mexico, Feb. (*W. B. Richardson*).	Salvin-Godman Coll.
y^3. ♂ ad. sk.	Jalapa, Mexico, March (*F. D. G.*).	Salvin-Godman Coll.
z^3, a^4. ♂ ♀ ad. sk.	Jalapa, Mexico, July.	Salvin-Godman Coll.
b^4. ♂ ad. sk.	Jalapa, Mexico (*de Oca*).	Salvin-Godman Coll.
c^4. ♂ ad. sk.	Tehuantepec, Feb. (*W. B. Richardson*).	Salvin-Godman Coll.
d^4. ♀ ad. sk.	Salina Cruz, Tehuantepec, Feb. (*W. B. Richardson*).	Salvin-Godman Coll.
e^4. ♀ ad. sk.	Environs of Mexico.	Salvin-Godman Coll.
f^4. ♂ ad. sk.	Mazatlan, W. Mexico, Dec. (*A. Forrer*).	Salvin-Godman Coll.
g^4, h^4. ♂ ♀ ad. sk.	Tres Marias Is., W. Mexico, March (*A. Forrer*).	Salvin-Godman Coll.
i^4. ♂ ad. sk.	Socorro Isl. (*A. J. Grayson*).	Salvin-Godman Coll.
k^4, l^4. ♂ ♀ ad. sk.	Guatemala.	Tweeddale Coll.
m^4–q^4. ♂ ♀ ad. sk.	Panajachel, 5000 ft., Guatemala, March, April, June, Sept. (*W. B. Richardson*).	Salvin-Godman Coll.
r^4, s^4. ♂ ad. sk.	Santa Maria, nr. Quezaltenango, Guatemala, Aug. (*W. B. Richardson*).	Salvin-Godman Coll.
t^4, u^4, v^4. ♂ ♀ ad. et juv. sk.	Dueñas, Guatemala, July (*O. S.*).	Salvin-Godman Coll.
w^4. ♂ ad. sk.	Guatemala (*Fraser*).	Salvin-Godman Coll.
x^4. ♂ ad. sk.	Holbox Isl., Yucatan, Dec. (*G. F. Gaumer*).	Salvin-Godman Coll.
y^4. ♂ ad. sk.	Peto, Yucatan, April (*G. F. Gaumer*).	Salvin-Godman Coll.
z^4–k^5. ♂ ♀ ad. sk.	Cozumel Isl., Yucatan (*G. F. Gaumer*).	Salvin-Godman Coll.
l^5. ♂ ad. sk.	Mugeres Isl., Yucatan, Dec. (*G. F. Gaumer*).	Salvin-Godman Coll.
m^5. ♂ ad. sk.	Orange Walk, Brit. Honduras, Dec. (*G.F.Gaumer*).	Salvin-Godman Coll.
n^5, o^5. ♂ ad. sk.	San José, Costa Rica, Jan. (*J. Carmiol*).	Salvin-Godman Coll.
p^5. ♀ ad. sk.	Irazu Distr., Costa Rica (*H. Rogers*).	Salvin-Godman Coll.
q^5, r^5. ♂ ♀ ad. sk.	Sarayacu, Ecuador (*C. Buckley*).	Salvin-Godman Coll.
s^5, t^5. ♂ ad. sk.	Sical, Ecuador (*C. Buckley*).	Salvin-Godman Coll.
u^5, v^5. ♀ ad. et juv. sk.	Quito, Ecuador (*Higgins*).	Salvin-Godman Coll.
w^5. ♀ ad. sk.	Ecuador.	Salvin-Godman Coll.
x^5. ♀ ad. sk.	Borba, Brazil, April (*Natterer*).	Salvin-Godman Coll.
y^5, z^5. ♂ ♀ ad. sk.	Para, Jan., July (*R. L. Layard*).	Tweeddale Coll.

a^6. ♂ ad. sk.	Para, Lower Amazons (*A. R. Wallace*).	Salvin-Godman Coll.
b^6, c^6. ♂ ♀ ad. sk.	Pernambuco, Brazil (*W. A. Forbes*).	Salvin-Godman Coll.
d^6. ♂ ad. sk.	Quonga, Brit. Guiana, Sept. (*H. Whitely*).	Salvin-Godman Coll.
e^6, f^6. ♂ ♀ ad. sk.	Annai, Brit. Guiana, April, July (*Whitely*).	Salvin-Godman Coll.
g^6, h^6. ♀ ad. sk.	Venezuela.	Purchased.
i^6, k^6. ♂ ad. sk.	Trinidad.	Zool. Soc. Coll.
l^6, m^6. ♂ ad. sk.	Grenada, W. I., March, July (*D. W. Smith*).	Salvin-Godman Coll.
n^6. ♂ ad. sk.	Grenada, W. I., March (*F. A. Ober*).	Salvin-Godman Coll.
o^6. ♂ ad. sk.	Becqura, Grenadines, W. Indies, May (*D. W. Smith*).	Salvin-Godman Coll.
p^6. ♂ ad. sk.	Mustique, Grenadines, W. I., June (*D. W. Smith*).	Salvin-Godman Coll.
q^6–w^6. ♂ ♀ ad. sk.	St. Vincent, W. I., Feb., April, May, Aug. (*D. W. Smith*).	Salvin-Godman Coll.
x^6. ♀ ad. sk.	Barbadoes, W. I.	Sir R. Schomburgk [P.].
y^6. ♀ ad. sk.	Barbadoes, W. I. (*Briggs*).	Salvin-Godman Coll.
z^6. ♀ ad. sk.	Santa Lucia, W. I. (*Semper*).	Salvin-Godman Coll.
a^7. ♂ ad. sk.	Santa Lucia, W. I., April (*Ramage*).	West India Comm. Royal Soc. [P.].
b^7, c^7, d^7. ♂ ♀ ad. sk.	Dominica, W. I., March (*Ramage*).	West India Comm. Royal Soc. [P.].
e^7, f^7. ♂ ♀ ad. sk.	**Guadaloupe, W. I. (*F. A. Ober*).**	**Salvin-Godman Coll.**
g^7. ♂ ad. sk.	St. Kitts, W. I., Feb. (*C. B. Cory*).	Salvin-Godman Coll.
h^7. ♀ ad. sk.	Tortola, W. I., Nov. (*C. B. Cory*).	Salvin-Godman Coll.
i^7, k^7. ♂ ♀ ad. sk.	Anguilla, W. I.	W. R. Elliot [C.].
l^7, m^7. ♂ ♀ ad. sk.	Virgin Gorda, W. I., Nov., Dec. (*C. B. Cory*).	W. R. Elliot [C.].
n^7. ♀ ad. sk.	St. Thomas, W. I. (*R. Swift*).	Salvin-Godman Coll.
o^7. ♂ ad. sk.	Porto Rico (*Bryant*).	Salvin-Godman Coll.
p^7. ♂ ad. sk.	Port au Prince, Hayti, April (*A. C. Younglove*).	Salvin-Godman Coll.
q^7. ♀ ad. sk.	San Domingo (*C. G. McGregor*).	Salvin-Godman Coll.
r^7. ♀ ad. sk.	Hayti.	Baron Maltzan [C.].
s^7. ♂ ad. sk.	Nr. Spanish Town, Jamaica, June.	Mrs. Bryant [P.].
t^7. ♀ ad. sk.	Nr. Spanish Town, Jamaica, Aug. (*W. T. March*).	Smithsonian Institution.
u^7, v^7. ♂ ♀ ad. sk. et st.	Jamaica.	Purchased.
w^7. ♂ ad. sk.	Grand Cayman, W. I., March (*C. J. Maynard*).	Salvin-Godman Coll.
x^7–a^8. ♂ ad. et juv. sk.	San Cristobal, Cuba, May (*G. F. Gaumer*).	Salvin-Godman Coll.

b^2–c^2. ♂ ♀ ad. sk.	Bermudas.	Capt. Saville Reid [C.].
^{a}. Pull. sk.	Bermudas, May (*C. Hart Merriam*).	Salvin-Godman Coll.

2. Chamæpelia minuta.

Turtur parvus fuscus americanus, *Bris. Orn.* i. p. 116, pl. viii. f. 2 (1760) (San Domingo !).

Columba minuta, *Linn. S. N.* i. p. 285, n. 35 (1766) (*ex Brisson*); *Gm. S. N.* i. 2, p. 788, n. 35 (1788); *Lath. Ind. Orn.* ii. p. 612, n. 68 (1790); *Bonn. Enc. Méth.* i. p. 253 (1790); *Temm. & Knip, Pig.* i. fam. trois. p. 28, pl. 16 (1808–11); *Temm. Pig. et Gallin.* i. pp. 432, 498 (syn. emend.) (1813); *Vieill. N. D.* xxvi. p. 404 (1818); *Desm. Dict. Sc. Nat.* xl. p. 309 (part.) (1826); *Wagl. Syst. Av.* Columba, sp. 89 (1827); *Less. Tr. d'Orn.* p. 474 (1831); *id. Compl. de Buff., Ois.* viii. p. 12 (1837); *id. op. cit.* 2nd ed. p. 272 (1838); ? *Denny, P. Z. S.* 1847, p. 39 (Jamaica ! and Cuba !).

? Petite Tourterelle de la Martinique (!), *D'Aubent. Pl. Enl.* 243. f. 2 *.

Passerine Turtle, var. A, *Lath. Syn.* ii. 2, p. 660, n. 59 (1783).

Columba grisea, *Bonn. Enc. Méth.* p. 252 (1790) (Cayenne, *ex Holandre*).

Paloma enana, *Azara, Apunt.* i. p. 25, n. 325 (1805); *Vieill. N. D.* xxvi. p. 382 (1818).

Pigeon nain, *Azara, Voy.* (*Sonn. ed.*) iii. p. 137 (1809).

Goura minuta, part., *Steph. Gen. Zool.* xi. p. 137 (1819).

Columbina griseola, *Spix, Av. Bras.* ii. p. 58, t. lxxv *a.* f. 2 (1825) (juv.).

Chæmepelia minuta, *Selb. Nat. Libr., Pigeons*, p. 202 (1835).

Chamæpelia minuta, *G. R. Gr. List Gallin. B. M.* p. 15 (1844); *id. Gen. B.* ii. p. 475, n. 3 (1845); *Hartl. Ind. Azar. Apunt.* p. 21, n. 325 (1847); *Rchnb. Syn. Av.* ff. 1422–23 (1847); *Peale, U.S. Expl. Exped., Birds*, p. 207 (1848) (Callao).

Peristera chalcostigma, *Rchnb. Syn. Av.* Columbariæ, *Novit. Suppl.* t. 245 *b.* ff. 3533–34 (1851).

? Chamæpelia (!) pumila, *Ill. in Mus. Berol.*

Chamæpelia rachidialis, *Schiff, in Mus. Francof.* (juv.), *fide Bp. Consp. Av.* ii. p. 78 (1854); *Hartert, Kat. Vogelsamml.* p. 187 (note) (1891).

Chamæpelia griseola, *Bp. Consp. Av.* ii. p. 78 (1854); *id. Compt. Rend.* xl. pp. 21, 220, n. 231 (1855); *id. Coup d'œil Ordre Pig.* pp. 38, 58, n. 231 (1855); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 50 (1856); *Burm. Syst. Ueb. Th. Bras., Vög.* ii. p. 296 (1856); *Reinh. Vid. Med. Nat. For.* 1870, p. 56 (Brazil); *G. R. Gr. Hand-list*, ii. p. 240, n. 9338 (1870); *Pelz. Orn. Bras.* p. 277 (note) (1871); *Gieb. Thes. Orn.* i. p. 634 (1872); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 21 (1873); *Sclat. & Salv. Nomencl. Av. Neotrop.* p. 133 (1873); *Baird, Brew., & Ridgw. Hist. N. Am. B.* p. 389 (1874); *Sclat. & Salv. P. Z. S.* 1876, p. 17 (Peru); *Forbes, Ibis*, 1881, p. 357 (N.E. Brazil); *Salv. Cat. B. Strickl. Coll.* p. 547 (1882); *id. Ibis*, 1886, p. 173 (Roraima); *Tacz. Orn. Pér.* iii. p. 244, Tabl. p. 102 (1886);

* I have very little doubt that D'Aubenton's figure has been copied from Brisson's.

Tristr. Cat. Coll. B. p. 39 (1889); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 283 (1890); *Hartert, Kat. Vogelsamml.* p. 187 (1891).

Chamæpelia amazilia, *Bp. Consp. Av.* ii. p. 78 (1854) (Peru, *Castelnau*) (type examined); *id. Compt. Rend.* xl. pp. 21, 220, n. 232 (1855); *id. Coup d'œil Ordre Pig.* pp. 38, 56, n. 232 (1855); *Sclat. P. Z. S.* 1856, p. 30 (Bogota); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 50 (1856); *Cass. U.S. Expl. Exp., Birds*, p. 279 (1858); *Sclat. & Salv. P. Z. S.* 1864, p. 370 (Panama); *Sclat. P. Z. S.* 1866, p. 100 (Peru); *Sclat. & Salv. P. Z. S.* 1867, p. 753 (Xeberos); *G. R. Gr. Hand-list*, ii. p. 240, n. 9339 (1870); *Pelz. Orn. Bras.* pp. 277, 450, liv (1871); *Wyatt, Ibis*, 1871, p. 383 (Colombia); *Gieb. Thes. Orn.* i. p. 632 (1872); *Sclat. & Salv. P. Z. S.* 1873, p. 306 (Xeberos); *Tacz. P. Z. S.* 1874, p. 555; *Berl. J. f. O.* 1884, p. 319.

Chamæpelia granatina, *Lawr.* (*nec Bp.*) *Ann. Lyc. N. Y.* vii. p. 333 (1861) (Panama).

Pyrgitœnas griseola, *Rchnb. Tauben*, i. p. 15, t. 256. ff. 1422-23, t. 245 *b.* ff. 3533-34 (1862).

Pyrgitœnas amazilia, *Rchnb. Tauben*, i. p. 15, ii. p. 162 (1862).

Goura griseola, *Schleg. De Dierent.* p. 208 (1864).

Peristera griseola, *Schleg. Mus. P.-B.* Columbæ, p. 135 (1873).

Columbigallina griseola, *Berl. J. f. O.* 1887, pp. 34, 124 (Paraguay).

Adult male. Crown, nape, and upper tail-coverts ashy; back greyish brown; occiput with a brown tinge; forehead slightly tinged with vinous; throat, breast, and abdomen vinaceous; lower abdomen whitish grey; crissum grey, the feathers white on the edges; upper wing-coverts greyish vinous, the inner ones with some steel-blue blotches; bastard-wing and primary-coverts black; under wing-coverts, axillaries, and inner webs of the quills cinnamon; the latter with the outer webs and tips dusky black; two central tail-feathers like the back; lateral feathers grey, with a broad subapical black band; outer tail-feathers edged with white at the tip: "bill brown; iris violet-red; feet flesh-colour" (*Taczanowski*). Total length about 6 inches, wing 3, tail 2, bill 0·42, tarsus 0·5.

Female. Upper parts pale greyish brown, with an olive cast, forehead paler; steel-blue spots on the wings as in the male; greater upper wing-coverts edged with white; throat and abdomen whitish; breast and flanks pale greyish brown; under tail-coverts pale buff, with the centres dusky grey; under surface of the wing as in the male; also the tail as in the male, only the central feathers browner.

Hab. From Southern Mexico through Central America to Guiana, Brazil, Paraguay, and Peru.

a, b. ♂ ad. st.	S. America.	Gould Coll.
c. ♀ ad. sk.	Atoyac, Vera Cruz, Mexico, May (*D. W. Smith*).	Salvin-Godman Coll.
d, e. ♂ ad. sk.	Retalhuleu, Guatemala, April, July (*W. B. Richardson*).	Salvin-Godman Coll.
f, g. ♂ ♀ ad. sk.	Isthmus of Panama (*Arcé*).	Salvin-Godman Coll.
h. [♀] ad. sk.	Panama (*McLeannan*).	Salvin-Godman Coll.

i–m. ♂ ♀ ad. sk.	Bogota.	Purchased.
n. ♂ ad. sk.	Trinidad.	Purchased.
o. ♀ ad. sk.	Martinique?	Verreaux Coll.
p, q. ♂ ♀ ad. sk.	Rio Yuruani, Brit. Guiana, 2700 ft., June (*H. Whitely*).	Salvin-Godman Coll.
r. ♂ ad. sk.	Quonga, Brit. Guiana, Feb. (*H. Whitely*).	Salvin-Godman Coll.
s. ♂ ad. sk.	Annai, Brit. Guiana, July (*Whitely*).	Salvin-Godman Coll.
t, u. ♂ ♀ ad. sk.	Brazil (*Verreaux*).	Salvin-Godman Coll.
v, w. ♂ ♀ ad. sk.	Pernambuco, Brazil (*Forbes*).	Salvin-Godman Coll.
x, y, z. ♂ ♀ ad. sk.	Bahia, Brazil (*Wucherer*).	Salvin-Godman Coll.
a'. ♀ ad. sk.	Chapada, Matto Grosso, Brazil, July (*H. H. Smith*).	Salvin-Godman Coll.
b'. ♂ ad. sk.	Xeberos, E. Peru, June (*E. Bartlett*).	Salvin-Godman Coll.
c'. ♀ ad. sk.	Lima, Peru.	Salvin-Godman Coll.
d'. ♂ ad. sk.	Peru.	Purchased.
e'. Skeleton.	S. America.	Purchased.

3. Chamæpelia cruziana.

Columba cruziana, *D'Orb. MS.* (Bolivia); *Prév. & Knip, Pig.* ii. p. 89, pl. 48 (1838–43).

Columba gracilis, *Tsch. Wiegm. Archiv*, 1843, 1. p. 385 (Peru); *id. Faun. Per., Aves*, pp. 45, 277, t. xxx. (1844).

Columbina gracilis, *G. R. Gr. Gen. B.* ii. p. 474, n. 5 (1845); *Rchnb. Syn. Av.* f. 1407 (1847).

Peristera cruziana, *G. R. Gr. Gen. B.* ii. p. 476, n. 18 (1845); *Schleg. Mus. P.-B.* Columbæ, p. 137 (1873).

Colombicolin péruvien, *Less. Descr. Mamm. et Ois.* p. 212 (1847).

Chamæpeleia cruziana, *Rchnb. Av. Syst. Nat.* p. xxiv (1852).

? Chamæpelia cyanostigma (*errore*), *Rchnb. in Bibra, Denkschr. k. Ak. Wissensch.* v. 2, p. 130 (1853) (Chili); *id. J. f. O.* 1855, p. 56.

Columbula cruziana, *Bp. Consp. Av.* ii. p. 80 (1854); *id. Compt. Rend.* xl. pp. 23, 219, n. 239 (1855); *id. Coup d'œil Ordre Pig.* pp. 39, 58, n. 239 (1855); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 40 (1856); *Sclat. P. Z. S.* 1858, p. 461 (Cuenca, Ecuador), ? 1860, p. 289 (Babahoyo, Ecuador); *G. R. Gr. Hand-list*, ii. p. 240, n. 9346 (1870); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 21 (1873); *Tacz. P. Z. S.* 1874, p. 555 (Centr. Peru), 1877, p. 754, 1879, p. 243, 1880, p. 213.

Columbina cruziana, *Rchnb. Tauben*, i. p. 16 (1862), ii. p. 163, *Suppl.* t. i. ff. 1, 2 (1862).

Chamæpelia cruziana, *Sclat. P. Z. S.* 1866, p. 100 (Lima); *Sclat. & Salv. P. Z. S.* 1867, p. 989, 1868, pp. 176, 570; *Gieb. Thes. Orn.* i. p. 633 (1872); *Sclat. & Salv. Nomencl. Av. Neotrop.* p. 138 (1873); *id. P. Z. S.* 1879, p. 640; *Berl. & Tacz. P. Z. S.* 1882, p. 575; *Boeck, Mitth. orn. Ver. Wien*, 1884, p. 165; *Tacz. Orn. Pér.* iii. p. 248, Tables, p. 102 (1886); *Sclat. P. Z. S.* 1886, p. 402 (N. Chili); *Tristr. Cat. Coll. B.* p. 39 (1889); *James, New List Chil. Birds*, p. 10, n. 171 (1892).

Metriopeleia gracilis, *G. R. Gr. Hand-list*, ii. p. 242, n. 9373 (1870).

Adult male. Upper parts pale greyish brown; upper part of the

head and cheeks grey, changing into vinous on the lower parts, brighter or more rosy on the abdomen and under tail-coverts; throat whitish; wing-coverts pale vinous, on the shoulders a chestnut-purple band; anterior greater wing-coverts broadly tipped with steel-black spots on the inner upper wing-coverts and on both webs of the inner secondaries or tertials; primary-coverts and quills (except the inner secondaries) greyish black; the secondaries have the bases of the outer webs tinged with steel-blue; outer under wing-coverts greyish like the under surface of the quills, the inner ones and the axillaries black; central tail-feathers brownish grey, the lateral ones black towards the tip, grey at the base; outer tail-feathers almost entirely black, but the outer edge towards the tip whitish: "bill black, with the base yellow; irides red; legs red" (*Fraser*). Total length 7·5 inches, wing 3·9, tail 2·75, bill 0·56, tarsus 0·75.

Female. Differs from the male in being pale greyish brown also on the underparts, the latter much paler than the upper parts, almost whitish on the throat, abdomen, and under tail-coverts; forehead greyish. Size smaller.

Young male. Similar to the female, but the underparts mixed whitish and vinous.

Hab. Ecuador, Bolivia, Peru, and N. Chili.

a. Imm. sk.	Guayaquil.	Capt. Kellett & Lieut. Wood [P.].
b, c. Imm. sk.	Puna Island, Ecuador (*Buckley*).	Salvin-Godman Coll.
***d.* Imm. sk.**	**Bolivia.**	**Verreaux Coll.**
e. ♂ ad. sk.	Arequipa, S.W. Peru, May (*Whitely*).	Salvin-Godman Coll.
f. ♀ ad. sk.	Lima, Peru.	Salvin-Godman Coll.
g, h. ♀ ad. sk.	Central Peru (*Jelski*).	Salvin-Godman Coll.
i, k, l. ♂ ♀ ad. sk.	Pica, Tarapacá, N. Chili, Feb.	Berkeley James Coll.

4. Chamæpelia buckleyi. (Plate X. fig. 1.)

Chamæpelia buckleyi, *Sclat. & Salv. P. Z. S.* 1877, p. 21 (Ecuador); *Berl. & Tacz. P. Z. S.* 1883, pp. 537, 575; *Tacz. & Berl. P. Z. S.* 1885, pp. 111, 122; *Tacz. Orn. Pér.* iii. p. 245, Tables, p. 102 (1886).

Adult male. Upper parts vinous grey; forehead, sides of the head, and underparts vinous, paler (almost white) on the forehead and throat, somewhat greyer on the abdomen and under tail-coverts; velvety black spots on the outer webs on some of the upper wing-coverts, of the scapulars, and of the inner secondaries or tertials; bastard-wing, primary-coverts, and quills (with the exception of the inner secondaries) brown-black; under wing-coverts and axillaries black; quills below dark grey; longer upper tail-coverts and upper surface of the tail grey, the lateral feathers black at the tips, the outer ones almost entirely black, edged with white at the tips and part of the outer webs: "bill yellowish brown; feet yellow;

iris carmine, with an inner ring brownish" (*Taczanowski*). Total length about 7 inches, wing 3·5, tail 2·7, bill 0·5, tarsus 0·7.

Female. Pale brown above instead of vinous grey; the dark spots on the wings as in the male; middle of the throat white; rest of the underparts very pale buffy brown, almost white on the abdomen; under tail-coverts dusky grey with broad whitish edges; greater upper wing-coverts edged with white; tail as in the male, only the grey part with a slight brown wash.

Hab. Ecuador and Peru (Lechugal).

a, b. ♂ ♀ ad. sk.	Santa Rita, Ecuador (*Villagomez*).	Salvin-Godman Coll. (Types of species.)

5. Chamæpelia talpacoti.

Paloma roxiza, *Azara, Apunt.* i. p. 221, n. 323 (1805).
Pigeon rougeâtre, *Azara, Voy.* (*Sonn. ed.*) iii. p. 437 (1809).
Columba minuta (errore), *Temm. & Knip (nec Linn.), Pig.* i. fam. trois. pl. 12 (nec pl. 16) (1808–11).
Columba talpacoti, *Temm. & Knip, Pig.* i. fam. trois. p. 22 (type examined) (1808–11); *Temm. Pig. et Gall.* i. pp. 421, 496 (1813); *Vieill. N. D.* xxvi. p. 385 (1818); *Wied, Reise nach Bras.* ii. p. 341 (1821); *Vieill. Enc. Méth.* i. p. 385 (1823); *Desm. Dict. Sc. Nat.* xl. p. 308 (1826); *Wagl. Syst. Av.* Columba, sp. 86 (1827); *Less. Tr. d'Orn.* p. 474 (1831); *Wied, Beïtr.* iv. p. 465 (1832); *Less. Compl. de Buff., Ois.* viii. p. 12 (1837); *id. op. cit.* 2nd ed. p. 273 (1838); *Tsch. Faun. Per., Aves*, pp. 45, 275 (1844–46); *Euler, J. f. O.* 1867, pp. 189, 190, 196, 198 (Brazil).
Goura talpacoti, *Steph. Gen. Zool.* xi. p. 136 (1819).
Columbina cabocolo, *Spix, Av. Bras.* ii. p. 58, t. 75 *a.* f. 1 (1825).
Chæmepelia talpicoti (*sic*), *Selb. Nat. Libr., Pigeons*, p. 200, pl. 22 (1835).
Chæmepelia cinnamomina, *Sw. Class. B.* ii. p. 349 (1837).
Columbina talpacoti, *Gray* (ubi?), *Gould & Darw. Voy. Beagle, Zool.* iii. p. 116 (1841).
Chamæpelia talpacoli (*sic*), *G. R. Gr. Gen. B.* ii. p. 475, n. 2 (1845).
Chamæpelia talpacoti, *Hartl. Syst. Verz.* p. 99 (1844); *Rchnb. Syn. Av.* f. 1424 (1847); *Hartl. Ind. Azar. Apunt.* p. 20, n. 323 (1847); *Cab. in Schomb. Guiana*, iii. p. 744 (1848); *Burm. Syst. Ueb. Th. Bras., Vög.* p. 297 (1856); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 50 (1856); *Tayl. Ibis*, 1864, p. 94 (Ciudad Bolivar, Orinoco); *Sclat. & Salv. P. Z. S.* 1867, p. 591 (Rio Tocantins); *Euler, J. f. O.* 1867, p. 417; *Reinh. Vid. Med. Nat. For.* 1870, p. 56, n. 67; *Pelz. Orn. Bras.* pp. 277, 450, liv (1871); *Hamilt. Ibis*, 1871, p. 309; *Gieb. Thes. Orn.* i. p. 636 (1872); *Layard, Ibis*, 1873, p. 396 (Para); *Sclat. & Salv. Nomencl. Av. Neotrop.* p. 133 (1873); *Garrod, P. Z. S.* 1873, pp. 468, 639, 1874, p. 250; *Berl. J. f. O.* 1874, p. 247; *Schmidt, P. Z. S.* 1880, p. 314; *Forbes, Ibis*, 1881, p. 357; *White, P. Z. S.* 1882, p. 626 (Argentina); *Salv. Cat. B. Strickl. Coll.* p. 547 (1882); *Sclat. List Vert. An.* 8th ed. p. 457 (1883); *Berl. & Jher. Zeitschr. d. ges. Orn.* 1885, p. 176 (Rio Grande do Sul); *Salv. Ibis*, 1886, p. 174; *Tacz. Orn. Pér.* iii. p. 246, Tables, p. 103 (1886); *Sclat. Argent. Orn.* ii. p. 144 (1889); *Tristr. Cat. Coll. B.* p. 39 (1889); *Hartert, Kat. Vogelsammml.* p. 187 (1891).
Chamæpeleia talpacoti, *Rchnb. Av. Syst. Nat.* p. xxiv (1852).

Talpacotia cinnamomea, *Bp. Consp. Av.* ii. p. 79, n. 1 (1854); *id. Compt. Rend.* xl. pp. 22, 220, n. 233 (1855); *id. Coup d'œil Ordre Pig.* pp. 39, 58, n. 233 (1855); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 21 (1873).

Chamæpelia godina, *Bp. Mus. Paris* (♀, type examined); *Pelz. Orn. Bras.* p. 450 (1871); *Gieb. Thes. Orn.* i. p. 634 (1872); *Sclat. & Salv. P. Z. S.* 1877, p. 22.

Talpacotia godina, *Bp. Consp. Av.* ii. p. 79, n. 3 (1854) (Brazil, Bolivia); *id. Compt. Rend.* xl. pp. 22, 219, n. 235 (1855) (? Centr. America); *id. Coup d'œil Ordre Pig.* pp. 39, 58, n. 235 (1855); *G. R. Gr. Hand-list*, ii. p. 240, n. 9343 (1870); ? *Sousa, Mus. Nac. Lisb.* Columbæ, p. 21 (1873) (Surinam!); *Tacz. P. Z. S.* 1874, p. 555 (Centr. Peru), 1879, p. 243.

Talpacotia godinæ (*errore*), *Burm. Syst. Ueb. Th. Bras., Vög.* ii. p. 297 (1857).

Chamæpeleia cinnamomina, *Rchnb. Tauben*, i. p. 15, t. 2536. f. 3379, t. 256. f. 1424 (1862), ii. p. 163 (1862).

Chamæpeleia godina, *Rchnb. Tauben*, i. p. 16 (1862).

Goura cinnamomea, *Schleg. De Dierent.* p. 208 (1864).

Talpacotia talpacoti, *G. R. Gr. Hand-list*, ii. p. 246, n. 9341 (1870).

Peristera talpacoti, *Schleg. Mus. P.-B.* Columbæ, p. 136 (1873).

Columbigallina talpacoti, *Berl. J. f. O.* 1887, p. 124; *Allen, Bull. Am. Mus. N. H.* ii. p. 105 (1889) (Bolivia).

Leptopelia talpacoti, *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 283 (1890).

Adult male. General plumage brown vinous red, paler (almost white) on the breast; upper part of the head and nape grey, lighter on the forehead; on the inner wing-coverts, scapulars, and tertials several blotches of a black steel-blue; bastard-wing, primary-coverts, and quills brown-black; axillaries and under wing-coverts black; two central tail-feathers like the back; the remainder brown-red towards the base, black towards the tip; the outer feathers edged with pale reddish on the apical part of the outer web: "iris dull yellow-red; feet flesh-colour; bill dark brown" (*Wied*). Total length 7·5 inches, wing 3·6, tail 2·75, bill 0·51, tarsus 0·65.

Female. Paler and duller in colouring; a brownish tinge on the mantle; some specimens have scarcely a vinous tinge, but are tinged with pale brownish grey, with the middle of the abdomen whitish, and the under tail-coverts dull rufous edged with whitish.

Young. Has no black blotches on the wings; the tail-feathers are edged with reddish (at the tip?) (*Burmeister*).

Obs. Specimens kept in confinement often become partially or wholly black.

Hab. Venezuela (Orinoco), Guiana, Brazil, Paraguay, Bolivia, and Peru.

a. ♂ ad. sk.	Quonga, Brit. Guiana, Nov. (*H. Whitely*).	Salvin-Godman Coll.
b, c. ♂ ad. sk.	Annai, Brit. Guiana, July (*H. Whitely*).	Salvin-Godman Coll.
d. ♂ ad. sk.	Demerara.	Zool. Soc. Coll.
e. Ad. st. [var. *albino*].	Cayenne.	H. C. Rothery, Esq. [P.].
f–h. ♂ ♀ ad. sk.	Brazil.	Salvin-Godman Coll.

i. ♂ ad. sk.	Ceará, N. Brazil (*W. Jesse*).	Salvin-Godman Coll.
k. ♀ ad. sk.	Para, Dec. (*E. L. Layard*).	Tweeddale Coll.
l. Ad. sk.	Para.	Purchased.
m, n. ♂ ad. sk.	Pernambuco, Brazil (*W. A. Forbes*).	Salvin-Godman Coll.
o, p. ♂ ♀ ad. sk.	Nova Friburgo, Prov. of Rio Janeiro, S.E. Brazil (*J. Youds*).	Salvin-Godman Coll.
q. ♂ ad. sk.	São Paulo, Brazil (*Joyner*).	Salvin-Godman Coll.
r. ♀ ad. sk.	Bahia, Brazil (*Wucherer*).	Salvin-Godman Coll.
s. Imm. sk.	Rio.	Salvin-Godman Coll.
t. ♂ ad. sk.	Raião, Rio Tocantins, Brazil (*Wallace*).	Salvin-Godman Coll.
u–x. ♂ ♀ ad. et imm. sk.	Chapada, Matto Grosso, Brazil, Jan., April, July, Oct. (*H. H. Smith*).	Salvin-Godman Coll.
y, z, a'. ♂ ad. st. et imm. sk.	Bolivia.	T. C. Bridges, Esq. [C.].
b'. ♂ ad. st. [var.].		Zool. Soc. Coll.

6. Chamæpelia rufipennis.

? Colombicolin de San Carlos (Centre-Amérique), *Less. Descr. Mamm. et Ois.* p. 212 (1847).

Chæmepelia rufipennis, *G. R. Gr. MS. in Mus. Brit.*; *id. List B. Brit. Mus.* Columbæ, p. 51 (1856).

Talpacotia rufipennis, *Bp. Consp. Av.* ii. p. 79 (1854); *id. Compt. Rend.* xl. pp. 22, 220, n. 234 (1855); *id. Couv d'œil Ordre Pig.* pp. 39, 58, n. 234 (1855); *id. Icon. Pig.* pl. cxxi (1857); *G. R. Gr. Hand-list*, ii. p. 240, n. 9342 (1870); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 21 (1873).

Chamæpelia rufipennis, *Burm. Syst. Ueb. Th. Bras., Vög.* ii. p. 297 (1856); *Sclat. P. Z. S.* 1857, p. 15 (Bogota), 1858, p. 359 (Honduras); *Moore, P. Z. S.* 1859, p. 61 (Honduras, Guatemala); *Lawr. Ann. Lyc. N. Y.* vii. p. 301 (1862); *Sclat. P. Z. S.* 1859, p. 369 (Jalapa); *Sclat. & Salv. Ibis*, 1859, p. 223; *Tayl. Ibis*, 1860, p. 227; *Sclat. & Salv. P. Z. S.* 1864, p. 370 (Panama); *Lawr. Ann. Lyc. N. Y.* viii. p. 179 (1865); *Salv. P. Z. S.* 1867, p. 159 (Veragua); *Sclat. & Salv. P. Z. S.* 1868, p. 628 (Venezuela); *Lawr. Ann. Lyc. N. Y.* ix. p. 139 (1868) (Costa Rica), p. 207 (Yucatan) (1869); *Frantz. J. f. O.* 1869, p. 372; *Salv. P. Z. S.* 1870, p. 217; *Sclat. & Salv. P. Z. S.* 1870, p. 838 (Honduras); *Wyatt, Ibis*, 1871, p. 383 (Colombia); *Gieb. Thes. Orn.* i. p. 635 (1872); *Sclat. & Salv. Nomencl. Av. Neotrop.* p. 133 (1873); *Sanchez, An. Mus. Nac. Mexico*, i. p. 105, n. 496 (1878); *Boucard, P. Z. S.* 1878, p. 43; *Sclat. & Salv. P. Z. S.* 1879, p 544 (Medellin); *Salv. & Godm. Ibis*, 1880, p. 178 (Santa Martha); *Sumichrast, Naturaleza*, v. p. 231, n. 30 (1881); *Boucard, P. Z. S.* 1883, p. 459 (Yucatan); *Berl. J. f. O.* 1884, p. 317; *Tristr. Cat. Coll. B.* p. 39 (1889); *Salv. Ibis*, 1889, p. 378 (Cozumel I.), 1890, p. 89.

Chamæpeleia rufipennis, *Rchnb. Taub.* i. p. 16, ii. p. 163 (1862).

Peristera rufipennis, *Schleg. Mus. P.-B.* Columbæ, p. 136 (1873).

Columbigallina rufipennis, *Ridgw. Pr. U.S. Nat. Mus.* viii. p. 561 (1885), 1887, p. 584 (Honduras); *id. Man. N. Am. Birds*, p. 215 (1887); *Zeled. An. Mus. Nac. Costa Rica*, 1887, p. 127, n. 595.

Leptopelia rufipennis, *Hein. & Reichen. Nomencl. Mus. Hein. Orn.* p. 283 (1890).

Adult male. Similar to *C. talpacoti*, but the quills cinnamon; the primaries are tipped with brown, the secondaries are brown also on the outer web; greater and outer under wing-coverts cinnamon. Size of *C. talpacoti*: "iris yellow" (*Salmon*) or "pale orange-carmine" (*Simons*).

Female. Above dull brownish, sometimes tinged with rusty; lower parts plain greyish brown or brownish grey.

Young. Greyish brown above, paler beneath, with no vinous tinge; the wing-coverts with narrow pale edges.

Hab. Mexico, from Orizaba and Colima, Central America, to Northern S. America, Colombia, Venezuela (and Guiana, *Schlegel*).

a, b. ♂ ad. et ♀ juv. sk.	Atoyac, Mexico, May (*D. W. Smith*).	Salvin-Godman Coll.
c. ♀ imm. sk.	Huatusco, State of Vera Cruz, Mexico, July (*Ferrari-Perez*).	Salvin-Godman Coll.
d–g. ♂ ♀ ad. sk.	Playa Vicente, Vera Cruz, Mexico, Dec. (*Trujillo*).	Salvin-Godman Coll.
h–o. ♂ ♀ ad. sk.	Teapa, Mexico, Feb., Mar. (*D. W. Smith*).	Salvin-Godman Coll.
p, q. ♂ ♀ ad. et ♂ imm. sk.	Santiago, Terr. of Tepic, Mexico, May (*W. B. Richardson*).	Salvin-Godman Coll.
r. ♂ ad. sk.	Tierra Colorada, 2000 feet, State of Guerrero, Mexico, Oct. (*Mrs. H. H. Smith*).	Salvin-Godman Coll.
s. ♂ ad. sk.	Acapulco, State of Guerrero, Mexico, Sept. (*Mrs. H. H. Smith*).	Salvin-Godman Coll.
t–w. ♂ ad. sk.	Tonala, Chiapas, Mexico, June (*W. B. Richardson*).	Salvin-Godman Coll.
x, y. ♂ ♀ ad. sk.	Putla.	Tweeddale Coll.
z. ♂ imm. sk.	Izalam, N. Yucatan, Feb. (*G. F. Gaumer*).	Salvin-Godman Coll.
a', b'. ♂ ad. sk.	Peto, Yucatan, April (*G. F. Gaumer*).	Salvin-Godman Coll.
c'. ♀ ad. sk.	Buetzotz, Yucatan, April (*G. F. Gaumer*).	Salvin-Godman Coll.
d'–n'. ♂ ♀ ad. sk.	Cozumel Is., Yucatan (*G. F. Gaumer*).	Salvin-Godman Coll.
o', p', q'. ♂ ♀ ad. et juv. sk.	Brit. Honduras (*Blancaneaux*).	Salvin-Godman Coll.
r', s', t'. ♂ ♀ ad. sk.	El Paraiso, Pacific coast of Guatemala (*O. S.*).	Salvin-Godman Coll.
u'. ♀ ad. sk.	Dueñas, Guatemala, July (*O. S.*).	Salvin-Godman Coll.
v', w'. ♂ ad. sk.	Retalhuleu, Guatemala, Jan., July (*W. B. Richardson*).	Salvin-Godman Coll.
x'–a''. ♂ ♀ ad. et imm. sk.	La Libertad, San Salvador, Feb. (*W. B. Richardson*).	Salvin-Godman Coll.
b''–f''. ♂ ♀ ad. sk.	Chinandega, Nicaragua, April, May (*W. B. Richardson*).	Salvin-Godman Coll.

g''. ♀ ad. sk.	Matagalpa, Nicaragua, Aug. (*W. B. Richardson*).	Salvin-Godman Coll.
h''. ♂ juv. sk.	Costa Rica (*Endres*).	Salvin-Godman Coll.
i''. ♂ ad. sk.	Bugaba, Chiriqui (*Arcé*).	Salvin-Godman Coll.
k''. ♂ ad. sk.	Mina de Chorcha, Chiriqui (*Arcé*).	Salvin-Godman Coll.
l''. ♂ ad. sk.	Chitra, Veragua (*Arcé*).	Salvin-Godman Coll.
m'', *n''*. ♂ ad. et imm. sk.	Lion Hill, Isthmus of Panama (*McLeannan*).	Salvin-Godman Coll.
o''. ♂ ad. sk.	Chepo, Isthmus of Panama (*Arcé*).	Salvin-Godman Coll.
p''. ♀ juv. sk.	Santa Marta, U.S. of Colombia, April (*Simons*).	Salvin-Godman Coll.
q'', *r''*. ♂ ♀ ad. sk.	Medellin, U.S. of Colombia (*Salmon*).	Salvin-Godman Coll.
s''. ♂ ad. sk.	Colombia.	Purchased of Verreaux. (One of the types of species.)
t''. ♂ ad. sk.	Bogota, New Granada (*G. Crowther*).	Salvin-Godman Coll.
u''. ♀ ad. sk.	San Esteban, Venezuela, May (*A. Goering*).	Salvin-Godman Coll.
v'', *w''*. ♂ ad. sk.	Trinidad (?)	Major Finch [P.]. (Types of species.)

11. UROPELIA.

	Type.
Uropelia, *Bp. Consp. Av.* ii. p. 85 (1854)	U. campestris.
Uropeleia, *Rchnb. Tauben*, i. p. 18 (1862).	

Range. The same as that of the only species.

1. Uropelia campestris.

Columbina campestris, *Spix, Av. Bras.* ii. p. 57, t. 75. f. 2 (1825); *Less. Compl. de Buff., Ois.* viii. p. 66 (1837); *id. op. cit.* 2nd ed. p. 287 (1838); *G. R. Gr. Gen. B.* ii. p. 474, n. 3 (1845); *Rchnb. Syn. Av.* f. 1406 (1847) (*ex Spix*).

Columba venusta, *Temm. Pl. Col.* 341. f. 1 (livr. 57, April 23, 1825)*; *Less. Tr. d'Orn.* p. 474 (1831); *Knip & Prév. Pig.* ii. p. 51, pl. 26 (1838–43); *Rchnb. Syn. Av.* f. 1411 (1847) (*ex Temminck*).

Columba turturina, *Desm. Dict. Sc. Nat.* xl. p. 362 (1826) (*ex Temm. Pl. Col.*).

Columba campestris, *Wagl. Syst. Av.* Columba, sp. 110 (1827); *id. Isis*, 1829, p. 745.

Columbina venusta, *G. R. Gr. List of Gallinæ B. M.* p. 14 (1844).

Chamæpelia venusta, *G. R. Gr. Gen. B.* ii. p. 475, n. 7 (1845).

Uropelia campestris, *Bp. Consp. Av.* ii. p. 85 (1854); *id. Compt. Rend.* xl. pp. 24, 220, n. 255 (1855); *id. Coup d'œil Ordr. Pig.* pp. 43, 58, n. 255 (1855); *id. Compt. Rend.* xliii. p. 946 (1856) (Bolivia).

Columbula campestris, *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 46

* It seems that the text to this plate appeared later than the plate itself, as Temminck's Latin name is not mentioned by Desmarest (1826) nor by Wagler (1827).

(1856); *Burm. Syst. Uebers. Th. Bras., Vög.* p. 299 (1856); *Pelz. Orn. Bras.* pp. 276, 450, liv (1871); *Sclat. & Salv. Nomencl. Av. Neotrop.* p. 133 (1873); *id. P. Z. S.* 1878, p. 141 (Arare, island of Marajo).

Uropelcia campestris, *Rchnb. Tauben*, i. p. 18, t. 253. ff. 1406, 1411 (1862); *G. R. Gr. Hand-list*, ii. p. 240, n. 9349 (1870).

Columba flavipes, *Natt. MS. fide Pelz. Orn. Bras.* p. 276 (1871).

Chamæpelia campestris, *Gieb. Thes. Orn.* i. p. 633 (1872).

Peristera campestris, *Schleg. Mus. P.-B.* Columbæ, p. 138 (1873).

Adult male. Upper parts pale brown, forehead grey; throat and breast pale vinous, the former paler; lower breast, abdomen, and under tail-coverts whitish, a slight brownish tinge on the flanks; two triangular patches of metallic purple on the innermost median and greater wing-coverts, bounded outwardly by a black band followed by a whitish one; three velvety-black spots on the outer webs of the inner secondaries or tertials; quills pale brown, with pale outer edges, the base of the inner webs underneath whitish; under wing-coverts and axillaries black, the greater under wing-coverts with broad white tips; central pair of tail-feathers uniform with the back, next two pairs similar, but black towards the tips; three outer pairs black, with some brown at the base, and broad white tips: "bill black; feet red" (*Spix*) or "flesh-colour" (*Burmeister*). Total length about 6 inches, wing 2·5, tail 3, bill 0·40, tarsus 0·62.

Hab. Brazil and Bolivia.

a. Ad. sk.	Uru, Brazil, July (*Natterer*).	Salvin-Godman Coll.
b. ♀ ad. sk.	Chapada, Matto Grosso, Brazil, Sept. (*H. H. Smith*).	Salvin-Godman Coll.
c, *d.* Ad. st. et sk.	Bolivia.	T. Bridges, Esq. [C.].
e. Ad. sk.	Bolivia.	Purchased.
f. Ad. sk.	Bolivia.	

12. OXYPELIA.

	Type.
Oxypelia, *Salvad.*	O. cyanopis.

Range. The same as that of the only species.

1. Oxypelia cyanopis. (Plate X. fig. 2.)

Columba cyanopis, *Natt. MS. apud*

Peristera cyanopis, *Pelz. Orn. Bras.* pp. 277, 336, 451, liv (1870*) (Brazil); *G. R. Gr. Hand-list*, ii. p. 242, n. 9367 (1870); *Sclat. & Salv. Nomencl. Av. Neotrop.* p. 133, n. 4 (1873); *Gieb. Thes. Orn.* iii. p. 66 (1877); *Pelz. & Lor. Ann. Naturh. Hofmus.* iii. p. 48 (1888).

Adult male. Head, neck, smaller and median upper wing-coverts, and upper tail-coverts rufous cinnamon, with a slight vinous tinge

* The date on the titlepage of the work is 1871, but it was completed in 1870 (*cf.* Ibis, 1871, p. 457).

or lustre; back, rump, scapulars, secondaries, and greater upper wing-coverts olive-brown; throat whitish; upper breast and sides dull ochraceous; abdomen pale buff; under tail-coverts pure snowy white; median upper wing-coverts with steel-blue spots on the outer webs; primary-coverts cinnamon; primaries also cinnamon, but the tips and the outer webs of the outer ones brown; bases of the inner webs of the quills underneath rufous cinnamon; under wing-coverts rufous, the inner ones whitish; tail graduated, central pair of rectrices rufous cinnamon, dusky towards the tips, remainder blackish, with the base of the outer web cinnamon, three outer pairs edged at the tip of the outer web with white, the next one with rufous: "iris blue, naked skin round the eyes cinereous; bill black; feet flesh-colour" (*Natterer*). Total length about 6 inches, wing 2·7, tail 2·6, bill 0·4, tarsus 0·64.

Female. Similar to the male, but somewhat paler (*Pelzeln*).

Hab. Cujaba, interior of Brazil.

a. ♂ ad. sk. Cujaba, Brazil (*Natterer*). Salvin-Godman Coll. (One of the typical specimens.)

13. PERISTERA.

Type.

Peristera, *Sw. Zool. Journ.* iii. p. 360 (1827) ..... P. cinerea.

Range. Neotropical Region, from Mexico to Peru and Paraguay.

Key to the Species.

a. Tail-feathers with no white tips; general plumage of the male grey ..... *cinerea*, p. 491.
b. Lateral tail-feathers with broad white tips.
a'. Breast grey ..... *geoffroyi*, p. 494.
b'. Breast and lower throat deep chestnut ..... *mondetoura*, p. 495.

1. Peristera cinerea.

Columba cinerea, *Temm. & Knip* (*nec Scop.*), *Pig.* i. fam. seconde, p. 126, pl. 58 (1808–11); *Temm. Pig. et Gallin.* i. pp. 299, 477 (1813); *Vieill. N. D.* xxvi. p. 366 (1818); *Steph. Gen. Zool.* xi. p. 83 (1819); *Vieill. Enc. Méth.* i. p. 382 (1823); *Temm. Pl. Col.* 266 (♀) (livr. 44, 1824); *Desm. Dict. Sc. Nat.* xl. p. 354 (1826); *Wagl. Syst. Av.* Columba, sp. 85 (1827); *id. Isis*, 1829, p. 745; *Less. Compl. de Buff., Ois.* viii. p. 44 (1837); *id. op. cit.* 2nd ed. p. 281 (1838).

Peristera cinerea, *Sw. Zool. Journ.* iii. p. 360 (1827); *G. R. Gr. List Gen. B.* 2nd ed. p. 75 (1841); *id. Gen. B.* ii. p. 476, n. 1 (1845); *Rchnb. Syn. Av.* ff. 1425–26 (1847); *Bp. Consp. Av.* ii. p. 75 (1854); *id. Compt. Rend.* xl. pp. 99, 220, n. 220 (1855); *id. Coup d'œil Ordre Pig.* pp. 37, 58, n. 220 (1855); *id. Compt. Rend.* xlii. p. 944 (1856) (Mexico); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 52 (1856); *Burm. Syst. Ueb. Thier. Bras., Vög.* ii. p. 303 (1856); *Sclat. P. Z. S.* 1856, p. 309 (Cordova); *Bp. Icon. Pig.* pl. 125. f. 1 (♀) (1857); *Scl. & Salv. Ibis*, 1859, p. 222 (Omoa, C. Amer.); *Moore, P. Z. S.* 1859, p. 61 (Omoa); *Sclat. P. Z. S.* 1859, p. 391

(Playa Vicente, S.W. Mexico); *Rchnb. Tauben*, i. p. 23, t. 256. ff. 1425, 1426 (1862), ii. p. 164 (1862); *Lawr. Ann. Lyc. N. Y.* viii. p. 301 (1862); *Sclat. P. Z. S.* 1864, p. 178 (Mexico); *Sclat. & Salv. P. Z. S.* 1864, p. 370, 1867, p. 753 (Xeberos, E. Peru); *Lawr. Ann. Lyc. N. Y.* ix. p. 138 (1869) (Costa Rica); *Frantz. J. f. O.* 1869, p. 371 (Cost Rica); *Salv. P. Z. S.* 1870, p. 217 (Veragua); *Pelz. Orn. Bras.* pp. 278, 451, liv (1870); *G. R. Gr. Hand-list*, ii. p. 241 (1870); *Sclat. & Salv. P. Z. S.* 1873, p. 306 (E. Peru); *Schleg. Mus. P.-B.* Columbæ, p. 138 (1873); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 20 (1873); *Sclat. & Salv. Nomencl. Av. Neotrop.* p. 133 (1873) (Guatemala and through Centr. America to Brazil); *Salv. Ibis*, 1874, p. 99 (Guatemala); *Cab. J. f. O.* 1874, p. 230 (Cantagallo); *Gieb. Thes. Orn.* iii. p. 66 (1877); *Tacz. P. Z. S.* 1877, p. 329 (Peru); *Sclat. & Salv. P. Z. S.* 1879, p. 544 (Remedios, Antioquia); *Salv. Cat. B. Strickl. Coll.* p. 549 (1882); *Berl. & Tacz. P. Z. S.* 1883, p. 575 (W. Ecuador); *Nutting, Pr. U.S. Nat. Mus.* vi. p. 408 (1883) (Nicaragua); *Tacz. & Berl. P. Z. S.* 1885, p. 111 (Ecuador); *Tacz. Orn. Pér.* iii. p. 253, Tables, p. 102 (1886); *Zeledon, An. Mus. Nac. C. R.* 1887, p. 127; *Berl. J. f. O.* 1887, pp. 34, 124 (Pilcomayo, Paraguay), 1889, p. 319 (Tarapoto); *Ridgw. Pr. U.S. Nat. Mus.* x. p. 584 (Truxillo, Honduras) (1887); *Allen, Bull. Am. Mus. N. H.* ii. p. 106 (1889) (Bolivia); *Tristr. Cat. Coll. B.* p. 40 (1889); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 284 (1890); *Hartert, Kat. Vogelsamml.* p. 187 (1891); *Cherrie, Auk*, 1892, p. 329 (Costa Rica).

Chamæpelia cinerea, *Hartl. Syst. Verz.* p. 99 (1844).

? Peristera ustulata, *Licht. Nomencl. Av.* p. 83 (1854) (Brazil); *Bp. Compt. Rend.* xliii. p. 944 (1856) (Mexico !).

Peristera pretiosa, *F.-Perez, Pr. U.S. Nat. Mus.* ix. p. 175 (Mexico) (1886).

Adult male. General plumage bluish grey, paler below, almost white on the forehead and throat; smaller and median upper wing-coverts and some of the innermost greater ones, some of the outer scapulars and inner secondaries, with roundish or quadrangular blue-black spots on the outer webs; bastard-wing, primary-coverts, and quills black, the secondaries with partial narrow grey edges; central tail-feathers grey, remainder of the rectrices black, but greyish towards the base of the inner ones above: "iris with an inner ring red, and an outer one yellow; feet red; bill yellow" (*Semiradzki*). Total length about 8·5 inches, wing 4·75, tail 3·6, bill 0·6, tarsus 0·76.

Female. Upper parts brown, almost cinnamon on the upper tail-coverts, paler on the forehead; spots on the upper wing-coverts and inner secondaries brown-cinnamon, the larger ones on the median and greater wing-coverts bounded behind with a light line; throat whitish, lower fore neck and breast pale brown, changing into grey on the rest of the lower parts; under tail-coverts greyish cinnamon; under wing-coverts grey; central tail-feathers brown-cinnamon; lateral rectrices black, but the inner ones tinged with rufous on the outer webs, outer pair edged with rufous on the outer web.

Young. Similar to the female, but duller, with the spots on the wing obsolete, and with the edges of the brown feathers of the

back and breast and of the upper wing-coverts rufous: "iris with inner ring white, outer cherry-red" (*Semiradzki*).

Hab. Southern Mexico, Central and Southern America, as far south as Paraguay and Peru.

a–d. ♂ ♀ ad. sk.	Tampico, Mexico, Feb. (*W. B. Richardson*).	Salvin-Godman Coll.
e, f. ♂ ad. et imm. sk.	Northern Yucatan (*G. F. Gaumer*).	Salvin-Godman Coll.
g, h. ♂ ♀ ad. sk.	Guatemala.	Gould Coll.
i. ♂ ad. sk.	Sources of Rio de la Pasion, Guatemala, Feb. (*O. S.*).	Salvin-Godman Coll.
k. ♂ ad. sk.	Yzabal, Guatemala, Sept. (*O. S.*).	Salvin-Godman Coll.
l. ♀ ad. sk.	Choctum, Vera Paz, Guatemala, Jan. (*O. S.*).	Salvin-Godman Coll.
m. ♂ ad. sk.	Choctum, Vera Paz, Guatemala (*O. S.*).	Tweeddale Coll.
n. ♂ ad. sk.	Retalhuleu, Guatemala, Jan. (*O. S.*).	Salvin-Godman Coll.
o. ♂ ad. sk.	Retalhuleu, Guatemala, July (*W. B. Richardson*).	Salvin-Godman Coll.
p. ♂ ad. sk.	Vicinity of Belize, Brit. Honduras (*Blancaneaux*).	Salvin-Godman Coll.
q, r. ♂ ♀ ad. sk.	Orange Walk, Brit. Honduras, Dec. (*G. F. Gaumer*).	Salvin-Godman Coll.
s. ♂ ad. sk.	El Volcan, Chinandega, Nicaragua, April (*W. B. Richardson*).	Salvin-Godman Coll.
t. ♂ ad. sk.	La Barranca, Costa Rica, March (*Arcé*).	Salvin-Godman Coll.
u. ♀ ad. sk.	Costa Rica (*J. Carmiol*).	
v. ♂ ad. sk.	Mina de Chorcha, Chiriqui (*Arcé*).	Salvin-Godman Coll.
w. ♂ ad. sk.	Calovevora, Veragua (*Arcé*).	Salvin-Godman Coll.
x, y, z. ♂ ♀ ad. et ♀ juv. sk.	Lion Hill, Isthmus of Panama (*McLeannan*).	Salvin-Godman Coll.
a', b'. ♂ ♀ ad. sk.	Remedios, U.S. of Colombia (*T. K. Salmon*).	Salvin-Godman Coll.
c'. ♂ ad. sk.	Venezuela (*Spence*).	Salvin-Godman Coll.
d', e'. ♂ ♀ ad. sk.	Quonga, Brit. Guiana, Oct., Nov. (*H. Whitely*).	Salvin-Godman Coll.
f', g'. ♂ ♀ ad. sk.	Ourumel, Brit. Guiana, Oct. (*H. Whitely*).	Salvin-Godman Coll.
h', i'. ♂ ♀ ad. sk. et st.	Cayenne.	Baron Laugier Coll.
k'. ♂ ad. sk.	Ucayale, June.	Gould Coll.
l', m'. ♂ ♀ ad. sk.	Balzar Mountains, Ecuador (*Illingworth*).	Salvin-Godman Coll.
n'. ♂ ad. sk.	Capim River, Para (*Wallace*).	Salvin-Godman Coll.
o'. ♀ ad. sk.	Bahia, Brazil (*Wucherer*).	Salvin-Godman Coll.
p', q'. ♂ ♀ ad. sk.	Chapada, Matto Grosso, Sept. (*H. H. Smith*).	Salvin-Godman Coll.
r'. ♂ ad. st.	S. America.	Purchased.

2. Peristera geoffroyi.

Columba geoffroyi, *Temm. & Knip, Pig.* i. fam seconde, pl. 57 (♂) (1808–11); *Temm. Pig. et Gallin.* i. pp. 297, 476 (1813); *Vieill. N. D.* xxvi. p. 352 (1818); *Steph. Gen. Zool.* xi. p. 69 (1819); *Wied, Reise nach Bras.* ii. p. 341 (1821); *Vieill. Enc. Méth.* i. p. 382 (1823); *Desm. Dict. Sc. Nat.* xl. p. 354 (1826); *Wagl. Syst. Av.* Columbæ, sp. 84 (1827); *id. Isis*, 1829, p. 744; *Less. Tr. d'Orn.* p. 473 (1831); *Wied, Beitr. Naturg. Bras.* iv. p. 461 (1832).

Columba godefrida, *Temm. & Knip, Pig.* i. fam. seconde, p. 125 (1808–11).

Peristera geoffroyi, *G. R. Gr. List Gallinæ B. M.* p. 16 (1844); *id. Gen. B.* ii. p. 476, n. 2 (1845); *Rchnb. Syn. Av.* Columbariæ, *Novit.* t. 266. ff. 2870–71 (1851); *Bp. Consp. Av.* ii. p. 75 (1854); *id. Compt. Rend.* xl. pp. 99, 220, n. 221 (1855); *id. Coup d'œil Ordre Pig.* pp. 37, 58, n. 221 (1855); *id. Compt. Rend.* xlii. p. 957 (1856) (Mexico), xliii. p. 944 (1856); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 52 (1856); *Burm. Syst. Ueb. Thier. Bras., Vög.* ii. p. 303 (1856); *Rchnb. Tauben*, i. p. 24, t. 266. ff. 2870–71 (♂), t. 257. f. 1430 (♀) (1862); *Pelz. Orn. Bras.* pp. 278, 451, liv (1870); *G. R. Gr. Hand-list*, ii. p. 241, n. 9365 (1870); *Schleg. Mus. P.-B.* Columbæ, p. 139 (1873); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 20 (1873); *Sclat. & Salv. Nomencl. Av. Neotrop.* p. 133 (1873) (Brazil); *Cab. J. f. O.* 1874, p. 230 (Cantagallo); *Berl. J. f. O.* 1874, p. 242 (Santa Catharina, S. Brazil); *Gieb. Thes. Orn.* iii. p. 66 (1877); *Tacz. P. Z. S.* 1882, p. 48 (N.E. Peru); *Gadow, P. Z. S.* 1882, p. 327; *Salv. Cat. B. Strickl. Coll.* p. 549 (1882); *Sclat. List Vert. An.* 8th ed. p. 454 (1883) (Isl. of Fernando de Noronha); *Goodch. P. Z. S.* 1886, p. 195; *Tacz. Orn. Pér.* iii. p. 250, Tables, p. 102 (1886); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 284 (1890); *Hartert, Kat. Vogelsamml.* p. 187 (1891).

Chamæpelia geoffroyi, *Hartl. Syst. Verz.* p. 99 (1844).

Peristera trifasciata, *Rchnb. Syn. Av.* f. 1430 (1847) (♀).

Leptoptila geoffroyi, *Bp. fide Bp. Consp. Av.* ii. p. 75 (1854).

Adult male. Bluish grey, paler (almost white) on the forehead and throat, and changing into pure white on the abdomen, vent, and under tail-coverts; on the wings three oblique bands, one blue on the smaller wing-coverts, and the other two of a purple-chestnut on the median and greater wing-coverts; these bands are edged with deep blue-black, and posteriorly with a second narrow light grey band; bastard wing and primary-coverts black; quills brown, with narrow light edges, broader and of a grey tinge on the secondaries; under wing-coverts black; two central tail-feathers bluish grey, the remainder white with the base grey, the grey part increasing towards the central ones: "iris dark brown, with an orange outer ring; bill blackish; feet blood-red" (*Wied*). Total length about 9·25 inches, wing 5·2, tail 3·6, bill 0·6, tarsus 0·85.

Female. Reddish brown, paler on the forehead, throat, and abdomen, changing into fawn-colour on the vent and under tail-coverts; three oblique bands on the wings, a very narrow deep blue one on the smaller wing-coverts, the other two on the median

and greater wing-coverts of a chestnut colour, and edged behind with a narrow band of fawn-colour; bastard-wing, primary-coverts, and under wing-coverts blackish brown; quills brown, with narrow reddish edges; two central tail-feathers reddish brown, the lateral ones greyish towards the base, black about the middle, and reddish fawn-colour at the tip.

Young. Resembles the female (*Wied*).

Hab. S.E. Brazil.

a. ♂ ad. sk.	S. America.	Baron Laugier Coll.
b. ♀ ad. sk.	S. America.	Salvin-Godman Coll.
c. Ad. sk.	Brazil (*Natterer*).	Salvin-Godman Coll.
d, *e*. ♂ ♀ ad. sk.	Brazil.	Gould Coll.
f. ♀ ad. sk.	Bahia, Brazil (*Wucherer*).	Salvin-Godman Coll.

3. Peristera mondetoura.

Peristera mondetoura, *Bp. Compt. Rend.* xlii. pp. 765 (♂), 957 (♀) (1856), xliii. pp. 944, 949 (1856) (Caracas); *id. Rev. et Mag. de Zool.* 1856, p. 248; *id. Icon. Pig.* pl. cxxvi. ff. 1 (♂), 2 (♀) (1857); *Rchnb. Tauben*, ii. p. 164 (1862); *Lawr. Ann. Lyc. N. Y.* ix. p. 139 (1868) (Costa Rica); *Frantz. J. f. O.* 1869, p. 371 (Costa Rica); *G. R. Gr. Hand-list*, ii. p. 242, n. 9306 (1870); *Sclat. & Salv. Nomencl. Av. Neotrop.* p. 133, n. 3 (1873) (Peru, Venezuela, Costa Rica, Mexico); *Sclat. P. Z. S.* 1873, pp. 780, 783 (Peru); *Salv. Ibis*, 1874, p. 99 (Guatemala), p. 455; *Gieb. Thes. Orn.* iii. p. 67 (1877); *Tacz. & Berl. P. Z. S.* 1885, p. 111 (Ecuador); *Tacz. Orn. Pér.* iii. p. 251, Tables, p. 102 (1886); *Zeled. An. Mus. Nac. Costa Rica*, 1877, p. 127, n. 592 (Costa Rica); *Sumichrast, Naturaleza*, v. p. 232, n. 33 (1881) (Mexico); *Allen, Bull. Am. Mus. Nat. Hist.* ii. p. 151 (Bogota) (1889).

Peristera lansbergii, *Schleg. Mus. P.-B.* Columbæ, p. 139 (1873); *Salv. Ibis*, 1874, p. 455 (=mondetoura); *Sharpe, Ibis*, 1875, p. 53 (note); *Gieb. Thes. Orn.* iii. p. 67 (1877).

Adult male. Upper parts dark grey, paler on the head, and with a slight brown tinge on the back; forehead and cheeks whitish grey, chin white; lower fore neck and upper breast deep chestnut, lower breast and sides dark grey; flanks tinged with brown, middle of the abdomen white; under tail-coverts whitish; three patches of deep violet-blue spots on the outer webs of the smaller, median, and greater upper wing-coverts; quills brown-grey, under wing-coverts blackish, mixed with some rufous tinge; central pair of rectrices uniform grey, remainder of the rectrices dark grey at the base, white on the apical half, which is tinged with grey on the inner ones: "bill black; eye pink; legs and toes lead-colour" (*H. Whitely*). Total length about 9 inches, wing 4·4, tail 2·4, bill 0·6, tarsus 0·92.

Female. Upper parts brown, with an olive lustre; rufous on the forehead, cheeks, and throat, the last whitish in the middle; also the rump and upper tail-coverts tinged with dull rufous; lower fore neck and breast brownish grey, minutely freckled with dusky; sides and flanks olive-brown; middle of the abdomen whitish, under

tail-coverts buff; spots on the wings as in the male, but more purple and less blue; central pair of rectrices brown-olive, the lateral rectrices brown, greyish towards the bases, and tipped with greyish brown, lighter on the outer ones, the tips on the outer pair whitish buff; tail underneath dark chocolate-brown, with the tips of the feathers greyish buff.

Young. Similar to the female, but more rufous on the upper parts, and with the feathers distinctly edged with rufous; dark spots on the wings only on the greater coverts, and of a brown-chocolate; behind these spots the tips of the greater inner wing-coverts paler brown.

Hab. Southern Mexico, Central America, Colombia, Venezuela, Ecuador, and Peru.

Mexican and Guatemalan birds have the under wing-coverts black, with no admixture of cinnamon-rufous.

a. ♂ ad. sk.	Jalapa, S. Mexico (*de Oca*).	Salvin-Godman Coll.
b. ♀ ad. sk.	Volcan de Fuego, Guatemala.	Salvin-Godman Coll.
c, *d*, *e.* ♂ ♀ ad. sk.	Calderas, Volcan de Fuego, Guatemala, Oct. (*O. S.*).	Salvin-Godman Coll.
f. ♂ ad. sk.	New Granada.	Purchased.
g. ♀ juv. st.	New Granada.	Purchased.
h. ♀ ad. sk.	Venezuela (*Spence*).	Salvin-Godman Coll.
i. ♀ ad. sk.	Monji, Ecuador (*Buckley*).	Salvin-Godman Coll.
k. ♀ juv. sk.	Juna, Ecuador (*Buckley*).	Salvin-Godman Coll.
l. ♂ ad. sk.	Huasampilla, Peru, March (*H. Whitely*).	Salvin-Godman Coll.*

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* I have failed to identify *Columba melancholica*, Tsch., which by Taczanowski (Orn. Pér. iii. p. 251) has been referred to *Peristera mondetoura*. As Tschudi's description does not at all agree with *P. mondetoura*, I asked the Authorities of the Museum of Neuchâtel to send me for inspection the type of *C. melancholica*, but unfortunately it cannot be found.

Columba melancholica, *Tsch. Wiegm. Arch. für Nat.* 1844, 1. p. 306, n. 270; *id. Faun. Per., Aves*, pp. 45, 277 (1844–46); *Burm. Syst. Ueb. Th. Bras., Vog.* ii. p. 306 (1856).

Starnœnas melancholica, *G. R. Gr. Gen. B.* ii. p. 479, n. 2 (1845).

Leptoptila melancholica, *Bp. fide Consp. Av.* ii. p. 70 (1854); *id. Compt. Rend.* xl. p. 100 (1855).

Geotrygon melancholica, *Bp. Consp. Av.* ii. p. 70 (1854); *id. Compt. Rend.* xl. p. 220, n. 205 (1855); *id. Coup d'œil Ordre Pig.* pp. 35, 58, n. 205 (1855); *Sclat. & Salv. Exot. Orn.* p. 79 (1867); *G. R. Gr. Hand-list*, ii. p. 243, n. 9397 (1870).

Oreopeleia? melancholica, *Reichb. Tauben*, i. p. 33, n. 75 (1862).

Peristera melancholica, *Gieb. Thes. Orn.* ii. p. 67 (1877).

"Haube violetbraun; Stirn und Gesicht gelblichfalb; Nacken, Rücken, und Bürzel rothbraun; Oberflügeldecken rostfarben, mit violettem Anfluge, die der zweiten und dritten Ordnung an der Spitze mit einem röthlichen Flecken; Fittig- und Schwungfedern schiefergrau, am äussern Fahnenbarte und an der Spitze leicht rostroth gesäumt; Schwanzfedern rostbraun, die mittlern dunkler als die äussern, auf der untern Seite sind alle viel heller; Kehle weisslich; Brust mit einem violetten Anfluge; Bauch, Weichen, und Schienen röthlich-weiss; Unterflugdecken falb. Schnabel an der Basis blau, im übrigen Verlaufe

14. METRIOPELIA.

Type.

Metriopelia, *Bp. Consp. Av.* ii. p. 75 (1854); *id. Compt. Rend.* xl. p. 23 (1855) ..... M. melanoptera.
Metriopeleia, *Rchnb. Tauben*, i. p. 17 (1862).

Range. Western S. America from Ecuador to Chili, and also Argentine side of the Cordilleras.

Key to the Species.

a. Tail longer, 3·75 inches; upper tail-coverts reaching about an inch from the tip of the tail; bend of the wing white; upper wing-coverts with no golden spots ..... *melanoptera*, p. 497.

b. Tail shorter, 2·4 inches; upper tail-coverts reaching 0·4 of an inch from the tip of the tail; bend of the wing with no white; median upper wing-coverts with golden spots at the tip. *aymara*, p. 499.

1. Metriopelia melanoptera.

Columba melanoptera, *Mol. Hist. Nat. Chili*, p. 308 (1782); *Gm. S. N.* i. p. 790, n. 70 (1788); *Lath. Ind. Orn.* ii. p. 615, n. 78 (1790); *Bonn. Tabl. Enc. Méth.* p. 257 (1790); *Vieill. N. D.* xxvi. p. 344 (1818); *Wagl. Syst. Av.* Columba (sp. releganda 7) (1827); *Burm. Syst. Ueb. Thier. Bras., Vög.* ii. p. 301 (1856).

Black-winged Pigeon, *Lath. Gen. Syn. Suppl.* ii. p. 271 (1802).

Columba boliviana, *D'Orb. & Lafr. in Eyd. & Gerv. Mag. de Zool.* 1836, p. 33, pl. 75; *id. Voy. de la Favor.* v. 2, p. 59, pl. 23 (1839); *Less. Compl. de Buff.* 2nd ed. p. 286 (1838); *Knip & Prév. Pig.* ii. p. 43, pl. 22 (1838–44); *Bridges, P. Z. S.* 1841, p. 95 (Chile); *Fraser, P. Z. S.* 1843, p. 115; *Jard. Contr. Orn.* 1849, p. 44 (Quito).

Columbina boliviana, *G. R. Gr. List of Gallinæ B. M.* p. 13 (1844); *Hartl. Naumannia*, 1853, p. 221.

Peristera boliviana, *G. R. Gr. Gen. B.* ii. p. 476, n. 17 (1845).

Zenaida boliviana, *Des Murs, in Gay's Hist. de Chile*, i. p. 379 (1847); *Rchnb. Syn. Av.* Columbariæ, *Novit.* t. 253 *b.* ff. 3375–76 (1851); *id. Av. Syst. Nat.* p. xxiv (1852); *MacFarl. Ibis*, 1887, p. 202.

Zenaida innotata, *Hartl. Rev. et Mag. de Zool.* 1851, p. 74 (Chili); *id. Naumannia*, 1853, p. 221; *id. Bericht Vög. südl. Philipp.* p. 5, sp. 114 (*fide Bp. Consp. Av.* ii. p. 76).

Chamæpelia melanura, *Rchnb. in Bibra, Denkschr. k. Ak. Wissensch.* v. 2, p. 130 (1853) (Cordillera of Chili); *id. J. f. O.* 1855, p. 56.

Columbula boliviana, *Bp. in litt.*

Metriopelia melanoptera, *Bp. Consp. Av.* ii. p. 75 (1854); *id. Compt. Rend.* xl. pp. 23, 220, n. 222 (1855); *id. Coup d'œil Ordre Pig.* pp. 40, 58, n. 222 (1855); *Burm. J. f. O.* 1860, p. 259; *id. La-*

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und am Unterkiefer gelb; Tarsen gelbichroth; Iris schwefelgelb. Gesammtlänge 9" 6"', Schnabel 9"', Flügel 4" 10"', Tarse 7"'." (*Tschudi.*)

Tschudi includes this species in the subgenus *Starnænas* (potius *Geotrygon*), together with *Geotrygon frenata* (Tsch.), to which most likely it is nearly allied.

Plata Reise, i. p. 306, ii. 496 (1861) (Cordillera Argent.); *Sclat. P. Z. S.* 1867, pp. 330, 339; *Sclat. & Salv. P. Z. S.* 1869, p. 155 (Tinta, Peru); *Sclat. P. Z. S.* 1870, p. 665; *Sousa, Mus. Nac. Lisb.* Columbæ, p. 20 (1873); *Sclat. & Salv. Nomencl. Av. Neotrop.* p. 132 (1873); *Garrod, P. Z. S.* 1873, pp. 468, 639, 1874, pp. 250, 256; *Tacz. P. Z. S.* 1874, p. 555 (Peru); *Sclat. & Salv. P. Z. S.* 1876, p. 17; *Salv. Cat. B. Strickl. Coll.* p. 549 (1882); *Sclat. List Vert. An.* 8th ed. p. 456 (1883); *Boeck, Mitth. orn. Ver. Wien*, 1884, p. 165; *Berl. & Tacz. P. Z. S.* 1884, p. 311 (W. Ecuador); *Tacz. & Berl. P. Z. S.* 1885, p. 111 (Chimborazo); *Tacz. Orn. Pér.* iii. p. 239, Table, p. 102 (1886); *Sclat. P. Z. S.* 1886, p. 402; *id. Argent. Orn.* ii. p. 142 (1889); *Heine & Rchnw. Nomencl. Mus. Hein. Orn.* p. 284 (1889); *Tristr. Cat. Coll. B.* p. 40 (1889); *Frenzel, J. f. O.* 1891, p. 123; *James, New List of Chil. B.* p. 10, n. 167 (1892).

Peristera melanoptera, *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 52 (1856); *Sclat. P. Z. S.* 1860, p. 82 (Ecuador).

Metriopeleia melanoptera, *Rchnb. Tauben*, i. p. 17, t. 253*b*. ff. 1375–76 (1862), ii. p. 163 (1862); *G. R. Gr. Hand-list*, ii. p. 242, n. 9368 (1870).

Chamæpelia melanoptera, *Gieb. Thes. Orn.* i. p. 635 (1872).

Melopelia melanoptera, part., *Schleg. Mus. P.-B.* Columbæ, p. 153 (1873).

Adult male. Upper parts greyish brown, changing into grey on the edges of the outer upper wing-coverts, and into white on the bend of the wing; underparts and sides of the neck pale vinous; under tail-coverts dark grey, the longest almost black; flanks grey; bastard-wing, primary-coverts, and quills black, tertials like the back; carpal edge of the wing whitish; inner under wing-coverts black, the outer ones white; tail black, changing into **grey towards the base of the feathers, the two central feathers** greyish black: "bill black; feet brown, with the toes almost black; iris silvery whitish ('dark brown,' *Stolzmann*); naked skin round the eyes milky orange ('orangé lacté'), behind and underneath with flesh-colour papillæ, in front above with black papillæ" (*Taczanowski*). Total length about 8·5 inches, wing 5·25, tail 3·75, bill 0·5, tarsus 0·7.

Female. Similar to the male, but without the vinous tinge on the underparts, which are pale greyish brown, almost white on the chin and on the middle of the abdomen.

Ecuador specimens, as already noticed by Graf von Berlepsch and Taczanowski, are darker than Peruvian and Chilian ones.

Hab. Western S. America, from Ecuador to Chili, and also on the Argentine side of the Cordilleras.

a. Ad. sk.	Near Pasto, Ecuador (*Lehmann*).	Salvin-Godman Coll.
b. Ad. sk.	Vicinity of Quito, Ecuador (*Higgins*).	Salvin-Godman Coll.
c, *d*. Ad. sk.	Sical, Ecuador (*Buckley*).	Salvin-Godman Coll.
e. Ad. sk.	Ecuador (*Higgins*).	Salvin-Godman Coll.
f. ♂ ad. sk.	Tinta, Peru, May (*H. Whitely*).	Tweeddale Coll.
g. ♂ ad. sk.	Tinta, Peru, June (*H. Whitely*).	Salvin-Godman Coll.

h. Ad. ak.	Lima, Peru (*Nation*).	Salvin-Godman Coll.
i. ♂ ad. ak.	Prov. of Tarapacá, N. Chili, Feb.	Berkeley James Coll.
k–n. Ad. et juv. ak.	Central Chili.	Berkeley James Coll.
o. Ad. ak.	Chili.	C. Crawley, Esq. [P.].
p, q. Ad. ak.	Chili.	Purchased.
r. Ad. ak.	Cordillera de Mendoza (*Burmeister*).	Salvin-Godman Coll.
s. Skeleton.	Chili.	Zool. Society's Coll.

2. Metriopelia aymara.

Columba aymara, *D'Orb. Syn. Av. MS.*; *Knip & Prév. Pig.* ii. p. 62, pl. 32 (1838–43).

Chamæpelia? aymara, *G. R. Gr. Gen. B.* ii. p. 475, n. 4 (1845); *Gieb. Thes. Ornith.* p. 633 (1872).

Metriopelia aymara, *Bp. Consp. Av.* ii. p. 76 (1854); *id. Compt. Rend.* xl. pp. 23, 220, n. 223 (1855); *id. Coup d'œil Ordre Pig.* pp. 40, 58, n. 223 (1855); *Sclat. & Salv. P. Z. S.* 1867, p. 989 (Salinas), 1868, p. 570; *id. Nomencl. Av. Neotrop.* p. 132 (1873); *id. P. Z. S.* 1879, p. 639 (Bolivia); *Tacz. Orn. Pér.* iii. p. 240, Tables, p. 102 (1886); *Sclat. P. Z. S.* 1886, p. 402 (Tarapacá, N. Chili); *James, New List of Chil. B.* p. 10, n. 168 (1892).

Peristera aymara, *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 53 (1856) (Bolivia).

Metriopeleia aymara, *Rchnb. Tauben*, i. p. 18 (1862), ii. p. 16, *Novit. Suppl.* t. i. f. 3 (1862) (*ex Knip*); *G. R. Gr. Hand-list*, ii. p. 242, n. 9370 (1870).

Columbina aurisquamata, *Leybold, Leopoldina*, Heft viii. no. 7, p. 53 (1873); *id. Excurs. Pamp. Argent.* p. 38 (1873); *id. J. f. O.* 1875, p. 446.

Melopelia melanoptera, part., *Schleg. Mus. P.-B.* Columbæ, p. 153 (1873).

Adult male. Upper parts pale brown, with a slight vinous tinge; occiput somewhat dusky; throat whitish; sides of the neck and breast pale vinous; middle of the abdomen, flanks, vent, and basal lateral under tail-coverts buff; remainder of the under tail-feathers brown-black; inner secondaries and upper wing-coverts uniform with the back; a row of golden spots at the tip of some of the median upper wing-coverts; primary-coverts and quills brown-black the primaries velvety black at the base of the outer webs, and with a cinnamon patch at the base of the inner webs; under wing-coverts greyish brown, the inner ones blackish, some of the anterior ones and axillaries vinous, dusky towards the tips; tail rather short, black, greyish towards the base, central pair of rectrices greyish brown, darker at the tip; the upper tail-coverts very abundant and long, falling short from the tip of the tail about 0·35 of an inch: "iris brown; beak black; feet and legs light pink" (*H. Saunders*). Total length about 7·5 inches, wing 4·75, tail 2·4, bill 0·4, tarsus 0·8.

Female. Similar to the male.

Young. Paler, with no vinous tinge on the breast, which is pale greyish, and with no golden spots on the wing-coverts; the feathers of the upper parts have narrow whitish edges.

Hab. From Peru and Bolivia to N. Chili, and Argentine Republic.

a, *b*. Ad. st.	Bolivia.	T. Bridges, Esq. [C.].
c. Ad. sk.	Tinta, Peru, June.	H. Whitely, Esq. [C.].
d. ♀ ad. sk.	Salinas, S.W. Peru, July (*H. Whitely*).	Salvin-Godman Coll.
e. Ad. sk.	Iquique, Peru (*H. Rowland*).	Salvin-Godman Coll.
f–*l*. ♂ ♀ ad. sk.	Prov. of Tarapacá, N. Chili, Jan., Feb.	Berkeley James Coll.
m. ♀ ad. sk.	L. Huascho, Tarapacá, Jan.	Berkeley James Coll.
n. Ad. sk.	Chili (*Landbeck*).	Berkeley James Coll.
o–*r*. ♂ ♀ ad. et juv. sk.	Pampas Argentinas (*Leybold*).	Salvin-Godman Coll.

Subfamily V. PHABINÆ.

Key to the Genera.

a. Rump with two dark bands across.
  a'. Tail very long, the two central feathers double the length of the lateral ones. — 15. ŒNA, p. 501.
  b'. Tail moderate, more or less rounded.
    a''. First primary attenuated at the tip ..... — 16. TYMPANISTRIA, p. 504.
    b''. First primary normal, not attenuated at the tip.
      a'''. Innermost upper wing-coverts and scapulars with some metallic spots ..... — 17. CHALCOPELIA, p. 506.
      b'''. Upper wing-coverts entirely metallic golden green ..... — 18. CHALCOPHAPS, p. 510.
b. Rump without dark bands across.
  c'. Head not crested.
    c''. Six central tail-feathers entirely rufous cinnamon; tail of 12 feathers, very little shorter than the wing, and much rounded; first primary equal to sixth ..... — 19. CALOPELIA, p. 522.
    d''. Central tail-feathers not entirely rufous, or if rufous the tail-feathers 14.
      c'''. Secondaries considerably, viz. always more than one inch, shorter than the primaries.
        a^4. Bill equal to the length of the head and very strong ..... — 20. HENICOPHAPS, p. 524.
        b^4. Bill shorter than the head and rather feeble.
          a^5. General plumage not uniform.
            a^6. Tail of 16 feathers ..... — 21. PHAPS, p. 525.
            b^6. Tail of 14 feathers ..... — 22. HISTRIOPHAPS, p. 529.

*b*². General plumage almost uniform dark brown, but the bases of the primaries white.....	23. PETROPHASSA, p. 530.
d''. Secondaries very little shorter, less than one inch, than primaries; bill rather thick	24. GEOPHAPS, p. 531.
*d*². Head crested.	
e''. Tail short, nearly even.....	25. LOPHOPHAPS, p. 533.
f''. Tail long and much rounded	26. OCYPHAPS, p. 535.

15. ŒNA.

	Type.
Œna, *Selby, MSS. in Sw. Class. B.* ii. p. 349 (1837)	O. capensis.

Æna, *Layard, B. S. Afr.* p. 258 (1867).

Range. The same as that of the only species.

1. Œna capensis.

Turtur Capitis bonæ Spei, *Briss. Orn.* i. p. 120, t. ix. f. 2 (1760).

Columba capensis, *Linn. S. N.* i. p. 286, n. 39 (1766) (*ex Brisson*); *Gm. S. N.* i. p. 790, n. 39 (1788); *Lath. Ind. Orn.* ii. p. 614, n. 75 (1790); *Bonn. Tabl. Enc. Méth.* p. 255 (1790); *Temm. & Knip, Pig.* i. fam. seconde, pls. 53, 54 (1808–11); *Temm. Pig. et Gallin.* pp. 366, 490 (1813); *Vieill. N. D.* xxvi. p. 388 (1818); *Steph. Gen. Zool.* xi. p. 102 (1819); *Temm. Pl. Col.* 341. f. 2 (young) (livr. 57, 1825); *Desm. Dict. Sc. Nat.* xl. p. 360 (1826); *Less. Tr. d'Orn.* p. 474 (1831); *Rüpp. Neue Wirbelth.* p. 67 (1835); *Less. Compl. de Buff., Ois.* viii. p. 67 (1837); *id. op. cit.* 2nd ed. p. 287 (1838); *Lefebr. Abys.* p. 139 (1845–50); *Schleg. Handl. Dierk.* i. p. 404 (1857); *Sundev. K. Sv. Vet.-Ak. Handl.* 1857, p. 54, nos. 273, 274, 275.

Tourterelle à cravate noir du Cap de Bonne Espérance, *D'Aubent. Pl. Enl.* 140.

Tourtelette, *Buff. Hist. Nat. Ois.* ii. p. 554 (1771); *Levaill. Ois. d'Afr.* vi. pls. 273, 274, 275 (♂, ♀, young ♂) (1808).

Tourterelle du Cap de Bonne Espérance, *Sonn. Voy. Ind. et Chine,* p. 179 (1782).

Cape Pigeon, *Lath. Syn.* ii. 2, p. 666, n. 65 (1783).

Columba atricollis, *Müll. S. N. Suppl.* p. 135, n. 45 (1776); *Cass. Pr. Philad. Acad.* 1864, p. 248.

Columba atrogularis, *Wagl. Syst. Av.* Columba, sp. 108 (1827).

Peristera capensis, *Boie, Isis,* 1828, p. 327.

Ectopistes? capensis, *Selb. Nat. Libr., Pigeons,* p. 189, pl. 20 (1835); *Heugl. Syst. Ueb.* n. 519 (1856).

Œna capensis, *Selby, MSS. in Sw. Class. B.* ii. p. 349 (1837); *id. B. W. Afr.* ii. p. 214 (1837); *G. R. Gr. List Gallinæ Brit. Mus.* p. 10 (1844); *id. Gen. B.* ii. p. 472 (1844); *Hartl. Syst. Verz.* p. 99 (1844); *Rüpp. Syst. Ueb.* p. 100 (1845); *Reichnb. Syn. Av.* ff. 1290–91 (1847); *id. Av. Syst. Nat.* p. xxv (1852); *Sclat. Contr. Orn.* 1852, p. 126 (Monkullo); *Hartl. J. f. O.* 1854, p. 206; *Bp. Consp. Av.* ii. p. 69 (1854); *id. Compt. Rend.* xl. pp. 20, 219, n. 202 (1855); *id. Coup d'œil Ordre Pig.* pp. 32, 57, n. 202 (1855); *Brehm, J. f. O.* 1855, pp. 481, 492; *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 36

(1856); *Heugl. Syst. Ueb.* p. 60 (1856); *Brehm, J. f. O.* 1857, pp. 78, 80; *Hartl. Orn. W.-Afr.* p. 198 (1857); *Brehm, J. f. O.* 1858, p. 407; *Heugl. Ibis*, 1859, p. 343; *Hom. J. f. O.* 1859, p. 361; *Hartl. J. f. O.* 1860, pp. 7, 162 (Madagascar), 180; *id. Orn. Beitr. Faun. Madag.* p. 67 (1861); *id. J. f. O.* 1861, p. 266; *Rchnb. Tauben*, i. p. 80, t. 250. ff. 1390–91 (1862), ii. p. 176 (1862); *Heugl. J. f. O.* 1862, pp. 294, 306; *Roche & E. Newt. Ibis*, 1863, p. 168 (Madagascar); *Hartm. J. f. O.* 1863, p. 468; *Pollen, N. T. D.* i. p. 319 (1863); *Brehm, Habesch*, p. 382 (1863); *Antin. Cat. descr. Ucc.* p. 91 (1864); *Gurn. P. Z. S.* 1864, p. 3 (Damara); *Heugl. J. f. O.* 1864, p. 264, 1865, p. 43; *Sclat. P. Z. S.* 1865, p. 675 (Djeddah); *Gurn. Ibis*, 1865, p. 270 (Natal); *Grandid. Rev. et Mag. de Zool.* 1867, p. 418; *Sperling, Ibis*, 1868, p. 291 (Mozambique); *Schleg. & Poll. Rech. Faun. Madag., Ois.* p. 114 (1868); *Cab. in v. d. Deck. Reis.* iii. p. 42 (1869); *Finsch & Hartl. Vögel Ost-Afr.* p. 557 (1870); *Finsch & Jesse, Tr. Zool. Soc.* vii. p. 290 (1870); *G. R. Gr. Hand-list*, ii. p. 236, n. 9285 (1870); *Heugl. Orn. N.O.-Afr.* i. p. 848 (1871); *Ayres, Ibis*, 1871, p. 261 (Transvaal); *Anders. B. Damara Land*, p. 235 (1872); *Sharpe, P. Z. S.* 1873, p. 716 (Mombas); *Antin. & Salvad. Viaggio Bogos*, p. 132 (1873); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 18 (1873); *Buckl. Ibis*, 1874, p. 385; *Shell. Ibis*, 1875, pp. 62, 83 (Wellington); *Sharpe & Bouv. Bull. Soc. Zool. Fr.* 1876, p. 52 (Landano); *Hartl. Vög. Madag.* p. 272 (1877); *Rchnw. J. f. O.* 1877, p. 13 (Loango) *Cab. J. f. O.* 1878, p. 243 (E. Afr.); *Bocage, Orn. Ang.* p. 292 (1881); *Sharpe, in Oates' Matabele Land*, App. B, p. 322 (1881); *Hartl. Abh. nat. Ver. Brem.* vii. p. 117 (1881); *Shell. P. Z. S.* 1881, p. 597 (Pangani, Jeddah); *id. Ibis*, 1882, p. 359; *Holub & Pelz. Beitr. Orn. Südafr.* p. 171 (1882); *Salv. Cat. B. Strickl. Coll.* p. 553 (1882); *Sclat. List Vert. An.* 8th ed. p. 450 (1883); ***Butl., Feild., & Reid, Zoologist*, 1883, p. 338 (Natal); *Shell. Ibis*, 1883, pp. 259, 290, 328; *Forbes, Ibis*, 1883, p. 519 (Niger); *Fischer, Zeitschr. ges. Orn.* 1884, p. 378; *Salvad. Ann. Mus. Civ. Gen.* (2) i. p. 209 (1884) (Shoa); *Verbury, Ibis*, 1886, p. 19 (Aden); *Gigl. Ann. Mus. Civ. Gen.* (2) vi. p. 61 (1888); *Salvad. ibid.* p. 305 (1888); *Tristr. Cat. Coll. B.* p. 41 (1889); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 278 (1890); *Hartert, Kat. Vogelsamml.* p. 185 (1891); *Rend. Ibis*, 1892, p. 228.

Columba (Ena) capensis, *Brehm, J. f. O.* 1853, extr. p. 101.

Turtur capensis, *Brehm, J. f. O.* 1857, p. 78; *Schleg. De Dierent.* p. 205 (1864); *Gieb. Thes. Orn.* iii. p. 726 (1877).

Æna capensis, *Layard, B. S. Afr.* p. 258 (1867); *Blanf. Zool. & Geol. of Abyss.* p. 418 (1870).

Columba ocellata, *P. Württemb., fide Gieb. Thes. Orn.* i. p. 748 (1872).

Peristera capensis, *Schleg. Mus. P.-B.* Columbæ, p. 145 (1873).

Adult male. Front part of the head and entire throat black, remainder of the head grey; hind neck, back, scapulars, inner wing-coverts, and innermost secondaries pale brown, shading into pearl-grey on the sides of the neck and on the remainder of the wing-coverts; lower back with two broad black bands, between them a pale brownish-buff band; upper tail-coverts brown-grey, edged with black: breast and abdomen white; under tail-coverts black, but the outer ones white; primary-coverts and quills cinnamon, with broad blackish-brown outer edges and tips, the last more or less grey; the inner upper wing-coverts have large steel-blue patches;

outer under wing-coverts cinnamon, the inner ones and axillaries black; tail above grey, the central feathers and the next two pairs blackish towards the tip, the remainder have a black subapical band and the tip grey, the outer feather of each side has the outer web mostly white: "iris brown; bill with the basal half lake-red, the end half a fine dark gamboge; tarsi and feet dark rose-red" (*Ayres*). Total length 9·25 inches, wing 4·4, tail 5·4, bill 0·55, tarsi 0·5.

Female. Differs from the male in having no black on the head and throat; forehead, cheeks, chin, and throat white, slightly greyer towards the crown, which is brown like the back; ear-coverts, sides and front of the neck, and crop pale ashy brown.

Young. Resembles the female, but has blackish bands on the crown and neck; the wing-coverts greyish brown, with blackish bands and whitish-buff apical spots: "bill blackish; feet dark purple" (*Antinori*).

Hab. Tropical and Southern Africa, and also Madagascar and Arabia, where it is found near Jeddah and Aden.

a. ♂ ad. sk.	Cape (*Butler*).	Shelley Coll.
b. ♀ ad. sk.	George Town (*T. C. Atmore*).	Shelley Coll.
c. ♂ ad. sk.	Elands Post.	Sharpe Coll.
d, *e*. ♂ ad. sk.	Kingwilliamstown (*Trevelyan*).	Shelley Coll.
f, *g*. ♂ ♀ ad. sk.	Burg Mount, Durban, June (*Gordge*).	Shelley Coll.
h, *i*. ♂ ad. et ♀ imm. sk.	Potchefstroom, Jan. (*T. L. Ayres*).	Salvin-Godman Coll.
k, *l*. ♂ ad. et ♀ imm. sk.	Potchefstroom, May, July (*T. L. Ayres*).	Gurney Coll.
m. ♂ ad. sk.	Transvaal, July (*J. E. Buckley*).	Shelley Coll.
n. ♀ ad. sk.	Transvaal.	Sharpe Coll.
o. ♀ juv. sk.	Between Pretoria and Mungwato, July (*F. Oates*).	W. E. & C. G. Oates, Esqrs. [P.].
p. ♂ ad. sk.	Crocodile R., Transvaal, July (*F. Oates*).	W. E. & C. G. Oates, Esqrs. [P.].
q. ♂ ad. sk.	Tati, Sept. (*F. Oates*).	W. E. & C. G. Oates, Esqrs. [P.].
r–*w*. ♂ ♀ ad. et juv. sk.	Tetti.	Livingstone Expedition [C.].
x. ♂ ad. sk.	Lamo (*Kirk*).	Salvin-Godman Coll.
y. ♀ ad. sk.	Pangani R. (*Kirk*).	Salvin-Godman Coll.
z. ♂ ad. sk.	Mombas.	Sharpe Coll.
a', *b'*. ♂ ♀ ad. sk.	Kilimanjaro, Jan.	F. J. Jackson, Esq. [P.].
c'–*g'*. ♂ ♀ ad. sk.	Shoa (*Harris*).	India Museum [P.].
h'. ♂ ad. sk.	Dongolo-Tigré, Abyssinia, May.	W. T. Blanford, Esq. [C.].
i'. ♂ juv. sk.	Ain, Lebka Valley, Abyssinia, Aug.	W. T. Blanford, Esq. [C.].
k'. ♀ ad. sk.	Ain, Abyssinia, Aug. (*Jesse*).	Shelley Coll.
l'. ♀ ad. sk.	Koomayli, Abyssinia, June (*Jesse*).	Tweeddale Coll.
m'. ♂ ad. sk.	Koomayli, Abyssinia, June (*Jesse*).	Salvin-Godman Coll.

n', *o'*, *p'*. ♂ ♀ ad. sk.	Tani, Soudan.	Capt. Verner [P.].
q'. ♀ ad. sk.	Jeddah (*Zohrab*).	Salvin-Godman Coll.
r', *s'*. ♂ ♀ ad. sk.	Madagascar (*Van Dam*).	Shelley Coll.
t'. Skeleton.		Purchased.

16. TYMPANISTRIA.

Type.

Tympanistria, *Rchnb. Av. Syst. Nat.* p. xxv (1852).. T. tympanistria.

Range. Confined to the Ethiopian Region.

1. Tympanistria tympanistria.

Tourterelle à ventre blanc, *Temm. Cat. Syst.* p. 253.

Tourterelle tambourette, *Levaill. Ois. d'Afr.* vi. p. 86, pl. 272 (1808).

Columba tympanistria, *Temm. & Knip, Pig.* i. fam. sec. p. 80, pl. 36 (1808–11); *Temm. Pig. et Gallin.* i. pp. 287, 475 (1813); *Vieill. N. D.* xxvi. p. 386 (1818); *Steph. Gen. Zool.* xi. p. 62 (1819); *Vieill. Enc. Méth.* i. p. 386 (1823); *Desm. Dict. Sc. Nat.* xl. p. 341 (1826); *Wagl. Syst. Av.* Columba, sp. 102 (1827); *id. Isis*, 1829, p. 745 (young); *Less. Tr. d'Orn.* p. 472 (1831); *id. Compl. de Buff., Ois.* viii. p. 49 (1837); *id. op. cit.* 2nd ed. p. 282 (1838); *Sundev. K. Sv. Vet.-Ak. Handl.* 1857, p. 54, n. 272; *Bianc. Specim. Zool. Mosamb.* fasc. xvi. p. 401 (1865); *Schleg. P. Z. S.* 1866, p. 425 (Mayotte).

Peristera tympanistria, *Boie, Isis*, 1828, p. 327; *Selb. Nat. Libr., Pigeons*, p. 205, pl. 23 (1835); *G. R. Gr. Gen. B.* ii. p. 476, n. 8 (1845); *Rchnb. Syn. Av.* f. 1435 (1847); *Hartl. Beitr. Orn. Westafr.* 1852, p. 37, sp. 383; *id. J. f. O.* 1854, p. 207, 1855, p. 361 (Gold Coast); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 57 (1856); *Hartl. Orn. W.-Afr.* pp. 197, 275 (1857); *Cass. Pr. Ac. Philad.* 1859, p. 143 (Camma and Muni Rivers); *Gurn. Ibis*, 1860, p. 214 (Natal); *Cass. J. f. O.* 1860, p. 196; *Hartl. J. f. O.* 1861, p. 266 (Casamance); *Ayres, Ibis*, 1864, p. 359 (Natal); *Layard, B. S. Afr.* p. 262 (1867); *Finsch, J. f. O.* 1867, p. 248 (Natal); *Poll. & Schleg. Rech. Faun. Madag.* p. 114 (1868) (Mayotte); *Sharpe, Ibis*, 1869, p. 387 (Fantee); *Finsch & Hartl. Vög. Ost-Afr.* p. 558 (1870); *Schleg. Mus. P.-B.* Columbæ, p. 143 (1873); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 18 (1873); *Rchnw. J. f. O.* 1874, p. 388 (Gold Coast); *Shell. Ibis*, 1875, p. 84 (Durban); *Sharpe & Bouv. Bull. Soc. Zool. Fr.* 1876, p. 52 (Landano); *Hartl. Vög. Madag.* p. 271 (1877); *Gieb. Thes. Orn.* iii. p. 68 (1877); *Rchnw. J. f. O.* 1877, p. 13 (Loango); *Fisch. t. c.* pp. 173, 176 (E. Afr.); *Bocage, Jorn. Ac. Lisb.* 1877, p. 349; *Cab. J. f. O.* 1878, p. 243 (Mombas); *Fisch. & Rchnw. t. c.* pp. 250, 292, 293 (E. Afr.); *Bocage, Orn. Ang.* p. 393 (1881); *Shell. P. Z. S.* 1881, p. 597 (Pangani); *Böhm, J. f. O.* 1882, p. 197 (Zanzibar); *id. Orn. Centralbl.* 1882, p. 66; *Fisch. Zeitschr. ges. Orn.* 1884, p. 378 (Massailand); *id. J. f. O.* 1885, p. 119 (E. Africa); *Rchnw. J. f. O.* 1887, p. 51; *Matsch. t. c.* p. 147; *Rchnw. J. f. O.* 1889, p. 270; *Emin, J. f. O.* 1891, pp. 342, 343 (Victoria Nyansa).

Peristera tympanistera, *Fras. P. Z. S.* 1843, p. 53 (Fernando Po).

Tympanistria bicolor, *Rchnb. Av. Syst. Nat.* p. xxv (1852); *Bp. Consp. Av.* ii. p. 67 (1854); *id. Compt. Rend.* xl. pp. 19, 219, n. 197

(1855); *id. Coup d'œil Ordre Pig.* pp. 32, 57, n. 197 (1855); *Rchnb. Tauben*, i. p. 78, t. 258. f. 1335 (1862)*, ii. p. 176 (1862); *Sclat. List Vert. An.* 8th ed. p. 459 (1883); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 285 (1890).

Tympanistria fraseri, *Bp. Consp. Av.* ii. p. 67 (1854); *id. Compt. Rend.* xl. pp. 19, 219, n. 198 (1855); *id. Coup d'œil Ordre Pig.* pp. 32, 57, n. 198 (1855); *id. Compt. Rend.* xliii. pp. 943, 949 (1856) (=bicolor); *G. R. Gr. Hand-list*, ii. p. 244, n. 9407 (1870).

Tympanistria tympanistria, *G. R. Gr. Hand-list*, ii. p. 244, n. 9406 (1870); *Butl., Feild., & Reid, Zoolog.* 1883, p. 338 (Natal); *Shell. Ibis*, 1883, p. 326; *Sharpe, Layard's B. S. Afr.* p. 571 (1884); *Shell. P. Z. S.* 1885, p. 230 (Kilimanjaro), 1889, p. 369 (Taveta, E. Africa); *Rchnw. J. f. O.* 1892, p. 15 (Sirwa I., Itolio, Victoria Nyanza), p. 179 (Cameroon); *Shell. Ibis*, 1893, p. 29 (Zomba).

Chalcoptera (*errore*) tympanistria, *Shell. P. Z. S.* 1879, p. 678 (Great Comoro).

Chalcopelia tympanistria, *Fischer, J. f. O.* 1879, p. 300 (E. Afr.); *Salv. Cat. B. Strickl. Coll.* p. 550 (1882); *Hartert, Kat. Vogelsamml.* p. 187 (1891).

Haplopelia tympanistria, *Tristr. Cat. Coll. B.* p. 40 (1889).

Adult male. Upper parts brown-grey; forehead, superciliary stripes extending to the sides of the occiput, cheeks, and underparts pure white; lores dark brown, sides of the neck more grey than the upper parts; across the rump two broad bands, more or less distinct, of blackish brown, and between them a pale greyish-brown band; a similar but almost obsolete band borders the second dark band; under tail-coverts brown-grey: on the inner wing-coverts and inner secondaries several dark spots varying from metallic green to dark purple, almost black; primary-coverts and primaries cinnamon, with the outer webs and tips dark brown; under wing-coverts and axillars cinnamon; lower flanks tinged with brown; six centre tail-feathers uniform brown, with a reddish tinge, the outer three pairs shade into grey with a broad subterminal black band; under surface of the tail brown, with an obsolete, darker, subterminal band, tips of the feathers pale brown, grey on the outer ones: "iris hazel; bill dark purple; tarsi and feet deep pink" (*Ayres*). Total length about 8·4 inches, wing 4·5 to 4·65, tail 3·6, bill 0·58 to 0·6, tarsus 0·8.

Female. Differs slightly in the forehead, cheeks, lower throat, and breast being tinted with dusky grey; the spots on the wings always blackish, never metallic green.

Immature birds have the secondaries with rufous bands towards the tips.

Hab. The whole of S. Africa, northward on the west coast to Casamance, and on the east coast to Mombas, also Madagascar, the Comoro Islands and Fernando Po.

a. Ad. sk.	S. Africa.	Sharpe Coll.
b. Ad. st.	Cape.	Dr. Krauss [C.].

* Reichenbach's work is mentioned by Hartlaub, J. f. O. 1861, p. 266, so that it appears to have been published before 1862.

c, d. ♂ ♀ ad. sk.	Knysna, Jan. (*C. J. Andersson*).	Tweeddale Coll.
e. Ad. sk.	Natal.	T. L. Ayres, Esq. [C.].
f, g, h. Ad. sk.	Durban (*Gordge*).	Shelley Coll.
i, k. ♂ ad. et ad. sk.	Durban, Feb., March (*G. E. S.*).	Shelley Coll.
l. Ad. sk.	Pangani R. (*Kirk*).	Shelley Coll.
m. Imm. sk.	Fantee (*Ussher*).	Shelley Coll.
n. Ad. sk.	Int. of Fantee.	J. Hickman, Esq. [P.].
o. ♂ imm. sk.	Taveta, Kilimanjaro, June.	H. C. V. Hunter, Esq. [P.].
p. ♀ ad. sk.	Kilimanjaro.	H. H. Johnston, Esq. [C.].
q. ♂ ad. sk.	Zomba, Nyassaland.	H. H. Johnston, Esq. [C.].
r. Ad. sk.	Abeokuta.	F. Nicholson, Esq. [P.].
s. Ad. sk.	Gaboon (*Du Chaillu*).	Shelley Coll.
t. Ad. sk.	Grand Comoro (*Kirk*).	Shelley Coll.
u. Imm. sk.	Grand Comoro.	Salvin-Godman Coll.
v. Skeleton.	S. Africa.	Zoological Society's Coll.*

17. CHALCOPELIA.

	Type.
Chalcopelia, *Bp. Consp. Av.* ii. p. 67 (1854)	C. afra.
Chalcopeleia, *Rchnb. Tauben*, i. p. 78 (1862) (nomen emend.).	

Range. Tropical Africa, from Gambia on the west and Abyssinia on the east, and South Africa.

1. Chalcopelia afra.

Turtur senegalensis, *Briss. Orn.* i. p. 122, t. 10. f. 1 (1760).

Columba afra, *Linn. S. N.* i. p. 284, n. 31 (1766); *Gm. S. N.* i. 2, p. 786, n. 31 (1788); *Lath. Ind. Orn.* ii. p. 611, n. 64 (1790); *Bonn. Tabl. Enc. Méth.* p. 249 (1790); *Temm. & Knip, Pig.* i. fam. sec. p. 83, pls. 38, 39 (1808-11); *Temm. Pig. et Gallin.* i. pp. 291, 476 (1813); *Vieill. N. D.* xxvi. p. 380 (1818); *Steph. Gen. Zool.* xi. p. 81 (1819); *Desm. Dict. Sc. Nat.* xl. p. 342 (1826); *Less. Tr. d'Orn.* p. 472 (1831); *id. Compl. de Buff., Ois.* viii. p. 49

* Tympanistria virgo.

Tympanistria virgo, *Hartl. Ibis*, 1886, p. 2 (Djanda, E. Equatorial Africa); *id. Zoolog. Jahrb.* ii. p. 331 (1887).

"*Mas.* Supra ex olivascente fusca, fascia tergi *unica*, maculis irregularibus obscurioribus vix conspicua; striâ a rictu per oculum ducta fusca; sincipite, superciliis *valde angustatis*, corporeque subtus pure albis; subcaudalibus obscure fuscis; subalaribus læte ferrugineis; remigibus primariis nigro-fuscis, horum pogoniis internis, parte apicali excepta, cinnamomeis, septimo, octavo, nono et decimo in pogonio externo et interno rufis, ultimis dorso proximis et scapularibus necnon tectricibus totis dorso concoloribus; *maculis metallicis alæ omnino* nullis; rectricibus fuscis, binis lateralibus griseis, fascia lata anteapicali nigra; rostro rubello-fuscescente; pedibus coccineis; iride aurantiaco-rubente. Long. tota circa 25 cent., rostr. 14 mill., al. 122 mill., caud. 85 mill., tars. 20 mill." (*Hartlaub.*)

Hab. Djanda, E. Equatorial Africa.

I am not acquainted with this bird, which, according to Dr. Hartlaub, differs from *T. tympanistria* in having no metallic wing-spots; but I cannot help thinking that the metallic-spotted wing-feathers are missing in the bird described.

(1837); *id. op. cit.* 2nd ed. p. 282 (1838); ? *W. & B. Orn. Can.* p. 28 (1841); *Bolle, J. f. O.* 1855, p. 173, 1857, p. 381; *Godm. Ibis*, 1872, p. 218.

Tourterelle du Sénégal, *D'Aubent. Pl. Enl.* 160; *Buff. Hist. Nat. Ois.* ii. p. 553 (1771).

African Turtle, *Lath. Syn.* ii. 2, p. 655, n. 55 (1783).

Tourterelle émeraudine, *Levaill. Ois. d'Afr.* vi. p. 84, pl. 271 (1808).

Columba chalcospilos, *Wagl. Syst. Av.* Columba, sp. 83, with var. *a* (1827); *Sundev. K. Sv. Vet.-Ak. Handl.* 1857, p. 54.

Columba senegalensis, *Rüpp. Neue Wirbelth., Vög.* p. 67 (1835).

Turtur chalcospilos, *Sw. B. W. Afr.* ii. p. 210 (1837).

Peristera afra, *G. R. Gr. List Gallinæ Brit. Mus.* p. 17 (1844); *id. Gen. B.* ii. p. 476, n. 9 (1845); *Rchnb. Syn. Av.* ff. 1427–28 (1847); *Strickl. & Sclat. Contr. Orn.* 1852, p. 157 (Damara); *Hartl. J. f. O.* 1855, p. 361; *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 57 (1856); *Hartl. Orn. W.-Afr.* pp. 197, 275 (1857); *Cass. Pr. Acad. Philad.* 1859, p. 144 (Camma, Ogobai, Muni, and Moonda Rivers); *Hartl. J. f. O.* 1861, p. 266; *id. P. Z. S.* 1867, p. 827 (Zanzibar); *Layard, B. S. Afr.* p. 262 (1867); *Gurn. Ibis*, 1868, pp. 48, 164; *Blanf. Geol. & Zool. Abyss.* p. 417 (1870); *Sharpe, P. Z. S.* 1870, p. 150 (Angola); *id. Ibis*, 1870, p. 486; *Shell. & Buckl. Ibis*, 1872, p. 290 (Gold Coast); *Schleg. Mus. P.-B.* Columbæ, p. 144 (1873); *Sharpe & Bouv. Bull. Soc. Zool. Fr.* 1876, p. 52 (Chinchonxo); *Rchnw. J. f. O.* 1877, p. 13 (Loango).

Peristera chalcospilos, *G. R. Gr. List Gallinæ B. M.* p. 17 (1844); *id. Gen. B.* ii. p. 476, n. 10 (1845); *Rüpp. Syst. Uebers.* p. 98, pl. 38 (1845) (Sennaar, Kordofan, Abyssinia); *Vierth. Naumannia*, 1852, p. 48 (nest & eggs); *Sclat. Contr. Orn.* 1852, p. 126; *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 57 (1856); *Hartl. Orn. W.-Afr.* p. 197 (note) (1857); *Cass. Pr. Acad. Philad.* 1859, p. 321 (Cape Lopez); *Hartl. J. f. O.* 1861, p. 265 (Camma R., Grand Bassam, Bissao, Casamance); *Sclat. P. Z. S.* 1862, p. 12 (Uzaramo); *Cab. v. d. Decken's Reis.* iii. p. 43 (1869) (Mombas); *Schleg. Mus. P.-B.* Columbæ, p. 144 (1873); *Shell. Ibis*, 1875, p. 84 (Durban).

Chamæpelia cruziana, *Rchnb.* (*nec D'Orb.*) *Syn. Av.* Columbariæ, *Novit. Suppl.* t. 245 *b.* ff. 3531–32 (1851).

Chalcopelia afra, *Bp. Consp. Av.* ii. p. 67 (1854); *id. Compt. Rend.* xl. pp. 19, 219, n. 199 (1855); *id. Coup d'œil Ordre Pig.* pp. 33, 57, n. 199 (1855); *Rchnb. Tauben*, i. p. 78, t. 245 *b.* ff. 3531–32 (1862), ii. p. 176 (1862); *Sclat. P. Z. S.* 1864, p. 113 (Duthuni); *Antin. Cat. Descr. Ucc.* p. 88 (1864); *Finsch, J. f. O.* 1869, p. 336; *Finsch & Hartl. Vög. Ost-Afr.* p. 554 (1870); *Finsch & Jesse, Tr. Zool. Soc.* vii. p. 290 (1870) (Abyssinia); *G. R. Gr. Hand-list*, ii. p. 244, n. 9408 (1870); *Heugl. Orn. N.O.-Afr.* i. 2, p. 845 (1871); *Gurn. in Anderss. B. Damara Land*, p. 236 (1872); *Rchnw. J. f. O.* 1872, p. 391 (Accra); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 18 (1873); *Sharpe, P. Z. S.* 1873, p. 716 (Mombas); *Rchnw. J. f. O.* 1873, p. 213, 1874, p. 387 (Gold Coast); *Heugl. Orn. N.O.-Afr.* ii. App. p. cli (1875); *Fischer, J. f. O.* 1877, pp. 173, 176, 207 (E. Afr.); *Fisch. & Rchnw. J. f. O.* 1878, pp. 250, 292 (Zanzibar), 1879, pp. 300, 303, 339 (E. Afr.); *Fischer, J. f. O.* 1880, p. 192 (E. Afr.); *Sharpe, in Oates' Matabele Land*, App. B, p. 322 (1881); *Hartl. Abh. nat. Ver. Brem.* vii. p. 117 (1881) (Lado); *Pelz. Verh. z.-b. Ges. Wien*, 1881, p. 616; *Bocage, Orn. Ang.* p. 389 (1881); *Shell. P. Z. S.* 1881, p. 596 (Pangani); *Böhm, Orn. Centralbl.* 1882, pp. 51, 119; *id. J. f. O.*

1882, p. 197; *Pelz. Verh. z.-b. Ges. Wien*, 1882, p. 511; *Holub & Pelz. Beitr. Orn. Südafr.* p. 176 (1882); *Salv. Cat. B. Strickl. Coll.* p. 549 (1882); *Schal. J. f. O.* 1883, p. 342; *Shell. Ibis*, 1883, p. 323; *Sclat. List Vert. An.* 8th ed. p. 458 (1883); *Sharpe, Layard's B. S. Afr.* p. 570 (1884); *Fisch. J. f. O.* 1885, p. 119; *Matsch. J. f. O.* 1887, p. 51; *Shell. Ibis*, 1888, p. 303; *Salvad. Ann. Mus. Civ. Gen.* (2) vi. p. 304 (1888) (Shoa); *Shell. P. Z. S.* 1889, p. 369; *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 285 (1890); *Hartert, Kat. Vogelsamml.* p. 187 (1891); *Emin, J. f. O.* 1891, p. 339; *Rchnw. J. f. O.* 1891, p. 373, 1892, p. 15; *Rend. Ibis*, 1892, p. 328.

Chalcopelia chalcospilos, *Bp. Consp. Av.* ii. p. 68 (1854); *id. Compt. Rend.* xl. pp. 19, 219, n. 200 (1855); *id. Coup d'œil Ordre Pig.* pp. 33, 57, n. 200 (1855); *Kirk, Ibis*, 1864, p. 330 (Zambesi); *Sclat. P. Z. S.* 1864, p. 113; *G. R. Gr. Hand-list*, ii. p. 244, n. 9409 (1870); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 18 (1873); *Cab. J. f. O.* 1878, p. 243 (E. Afr.); *Shell. P. Z. S.* 1881, p. 596 (Pangani and Dar-es-Salaam); *Sclat. List Vert. An.* 8th ed. p. 458 (1883); *Fischer, Zeitschr. f. g. Orn.* 1884, p. 378; *Rchnw. J. f. O.* 1889, p. 270.

Peristera parallinostigma, *Württ. Icon. ined.* n. 63; *id. Naumannia*, 1857, p. 434; *Heugl. J. f. O.* 1867, p. 301.

Chalcopelcia afra, *Rchnb. Tauben*, i. p. 78, t. 245 *b.* ff. 3531–32 (1862), ii. p. 176 (1862).

Chalcopeleia chalcospilos, *Rchnb. op. cit.* i. p. 79, t. 257. ff. 1427–28 (1862), ii. p. 176 (1862).

Turtur afer, *Gieb. Thes. Orn.* iii. p. 725 (1877).

Turtur chalcospilos, *Gieb. op. cit.* p. 726 (1877).

Haplopelia afra, *Tristr. Cat. Coll. B.* p. 40 (1889).

Chalcopelia chalcospila, *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 285 (1890); *Hartert, Kat. Vogelsamml.* p. 187 (1891).

Adult male. Crown leaden grey, fading into white on the forehead; upper parts pale brown; across the lower part of the back two broad black stripes, and between them a light brown one; upper tail-coverts edged with black at the tip; chin and middle of the throat whitish; sides of the head, front and sides of the neck, and breast vinous, fading into white on the abdomen and vent; under tail-coverts black, except the outer ones which are white; bastard-wing black; primary-coverts and quills bright cinnamon, edged on the outer web and tipped with dark brown; some of the inner median wing-coverts and some of the scapulars have boldly marked steel-blue patches on their outer webs; some of these patches are more or less metallic green; axillaries and under wing-coverts bright cinnamon; four central tail-feathers brown, changing into black at the tip, the lateral feathers are grey with a broad black apical band, and are more or less tipped with grey; the outer feathers have the base of the outer webs greyish white; "iris brown; bill dusky red, with the end yellow; legs brownish red" (*Shelley*). Total length about 8·5 inches, wing 4·6, tail 3·5, bill 5·5, tarsus 0·7.

Female. Somewhat smaller; the metallic spots on the wings golden green; the vinous colour of the underparts deeper and more extended on the abdomen, so that the underparts appear less

white: bill uniform dark brown. Total length about 7·5 inches, wing 4·3–4, tail 3·3–3·2, bill 5·5, tarsus 0·7.

Hab. The whole of Africa south of about 17° N. lat.

C. chalcospilos, with golden-green metallic spots on the wings, has been considered as a distinct species by many ornithologists; Capt. Shelley regards it only as a variety of the bird with steel-blue spots, both having been collected in the same localities. Mr. Anderson says that the bird with the green spots is the male, and the one with the purplish spots is the female.

It seems that by mistake this bird has been stated to live in Teneriffe, where most likely it has been confounded either with *Turtur senegalensis* or *T. turtur*.

Blue-spotted variety.

a. Ad. sk.	W. Africa.	Dr. Rendall [C.].
b. Ad. sk.	Gambia.	Salvin-Godman Coll.
c, d, e. Ad. et juv. sk.	Ashanti.	Gould Coll.
f. Ad. sk.	Fantee (*Ussher*).	Shelley Coll.
g, h. Ad. sk.	Cape Coast, Feb., March (*T. E. Buckley*).	Shelley Coll.
i, k, l. Ad. sk.	Accra, Feb., April (*J. Smith and G. E. S.*).	Shelley Coll.
m. Ad. sk.	Elmina, April (*Blissett*).	Shelley Coll.
n. ♂ ad. sk.	Rio del Rey, Niger (*H. H. Johnston*).	Shelley Coll.
o, p. Ad. sk.	Gaboon.	Rev. H. J. Ansell [P.].
q. Ad. sk.	Gaboon.	Shelley Coll.
r. Ad. sk.	Gaboon?, W. Africa (*Du Chaillu*).	Shelley Coll.
s. ♂ juv. sk.	Rio Dande, Loando, April.	J. J. Monteiro [C.].
t. Ad. sk.	Abyssinia.	India Museum [P.].
u. Ad. st.	Abyssinia.	Purchased.
v. ♂ ad. sk.	Ain, Abyssinia, Aug. (*Jesse*).	Shelley Coll.
w. ♂ ad. sk.	Kokai, Abyssinia, Aug. (*Jesse*).	Tweeddale Coll.
x. ♀ ad. sk.	Kokai, Abyssinia, Aug. (*Jesse*).	Salvin-Godman Coll.
y. ♀ ad. sk.	Waliko, Abyssinia, Aug. (*Jesse*).	Shelley Coll.
z. ♂ ad. sk.	Mohaber, Abyssinia, July (*Jesse*).	Shelley Coll.
a'. ♂ ad. sk.	Lebka Valley, Aug.	W. T. Blanford, Esq. [C.].
b'. ♀ ad. sk.	Ailat, Samhar, June.	W. T. Blanford, Esq. [C.].
c'. Juv. sk.	Mombas.	Sharpe Coll.
d'. Ad. sk.	Pangani R. (*Kirk*).	Shelley Coll.
e'. Ad. sk.	Usambala Mount, Pangani R. (*Kirk*).	Shelley Coll.
f'. Ad. sk.	Zambesi (*Meller*).	Shelley Coll.

Green-spotted variety.

a. ♂ ad. sk.	Efat, Abyssinia, April.	India Museum.
b. Ad. sk.	Manda Is.	F. J. Jackson, Esq. [P.].
c. Ad. sk.	Masailand.	H. C. V. Hunter, Esq. [P.].
d. Ad. sk.	Lamo (*Kirk*).	Shelley Coll.
e. Ad. sk.	Dar-es-Salaam (*Kirk*).	Shelley Coll.
f. Ad. sk.	Ushambala Hills, Pangani R. (*Kirk*).	Shelley Coll.
g. ♀ ad. sk.	Ndi, Teita, July.	Dr. Hildebrandt [C.].
h. Ad. sk.	Lower Shire Valley.	Earl Russell [P.].
i, *k*. Ad. sk.	Tette.	Livingstone's Expedition [C.].
l. ♂ ad. sk.	Swaziland, July (*T. E. Buckley*).	Shelley Coll.
m. ♀ ad. sk.	Lehtaba, Umzeila Country, June.	Gurney Coll.
n. ♀ ad. sk.	Pinetown, Natal, March (*G. E. S.*).	Shelley Coll.
o. ♀ ad. sk.	Durban, March (*G. E. S.*).	Shelley Coll.
p, *q*. ♂ ad. sk.	Durban (*T. L. Ayres*).	Shelley Coll.
r. Ad. sk.	Cape.	G. Campbell, Esq. [P.].
s. Juv. st.	Cape.	Dr. Krauss [C.].
t. ♀ ad. sk.	W. Africa (*Du Chaillu*).	Shelley Coll.
u. Skeleton.		Zoological Society's Coll.

18. CHALCOPHAPS.

	Type.
Peristera, *Less. Tr. d'Orn.* p. 471 (1831) (*nec Sw.*, 1827)	C. indica.
Chalcophaps, *Gould, B. Austr.* v. pl. 62 (pt. xiii., 1843)	C. chrysochlora.
Monornis, *Hodgs. Gray's Zool. Misc.* p. 85 (1844)	C. indica.

Range. From India and the Burmese Countries through the Malay Archipelago to Australia; also New Caledonia, New Hebrides, and Lord Howe Island.

Key to the Species.

a. Middle of the back and scapulars golden green like the upper wing-coverts.
  a'. Head entirely vinous, with no white forehead or superciliary stripes ..... } *chrysochlora*, p. 511. / *sanghirensis* ♀, p. 513.
  b'. Forehead and superciliary stripes white.
    a''. Crown, occiput, and hind neck vinous. *sanghirensis* ♂, p. 513.
    b''. Crown, occiput, and hind neck dark lead-grey colour ..... } *indica* ♂, p. 514. / *natalis* ♂, p. 520.
  c'. White of the forehead and superciliary stripes not very distinct.
    c''. Upper tail-coverts dark brown cinnamon, edged with black; central tail-feathers dark brown ..... *indica* ♀, p. 514.

d'. Upper tail-coverts almost pure cinnamon, like the central tail-feathers ..... *natalis* ♀, p. 520.

b. Middle of the back and scapulars cinnamon-rufous; forehead of the male pure white, of the female dark grey, abruptly defined from the colour of the crown.

d'. Smaller; wing 5·6 inches: white forehead of the male and dark grey of the female not reaching over the eyes..... *stephani*, p. 520.

e'. Larger; wing 6·4 inches: white forehead of the male and dark grey of the female reaching as far as the eyes ..... *mortoni*, p. 522.

1. Chalcophaps chrysochlora.

Columba javanica, *Temm. & Knip* (*nec Gm.*), *Pig.* i. fam. seconde, pl. 26 (nec descr.) (1808–11); *Less. Tr. d'Orn.* p. 471 (part., Timor) (1831); *id. Compl. de Buff., Ois.* viii. p. 43 (part.) (1837); *id. op. cit.* 2nd ed. p. 280 (part.) (1838); *S. Müll. Verh. Land- en Volkenk.* p. 119 (Banda) (1839–44).

Columba chrysochlora, *Wagl. Syst. Av.* sp. 79 (excl. syn.) (1827).

Chalcophaps chrysochlora, *Gould, B. Austr.* v. pl. 62 (pt. xiii., 1843); *G. R. Gr. Gen. B.* ii. p. 477, n. 2 (1845); *Blyth, J. A. S. B.* xiv. 2, p. 860 (1845); *id. Ann. & Mag. N. H.* xix. p. 109 (1847); *Strickl. ibid.* p. 101 (note) (1847); *Blyth, Cat. B. Mus. A. S. B.* p. 238, n. 1441 (1849); *Rchnb. Vög. Neuholl.* p. 319, sp. 423 (1850); *Bp. Consp. Av.* ii. p. 92 (1854); *id. Compt. Rend.* xl. pp. 209, 222, n. 276 (1855); *id. Coup d'œil Ordre Pig.* pp. 47, 59, n. 276 (1855); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 59 (1856); *id. P. Z. S.* 1858, p. 196; *id. Cat. B. New Guin.* p. 61 (1859); *id. Cat. B. Trop. Isl.* p. 45 (1859) (Tanna & Island of Nu); *Verr. & Des Murs, Rev. et Mag. Zool.* 1860, p. 436; *Rchnb. Tauben*, i. p. 47, t. 260. ff. 1443–44 (1862), ii. p. 166 (1862); *Gould, Handb. B. Austr.* ii. p. 118 (1865); *Schleg. N. T. D.* iii. pp. 265, 266 (1866); *Benn. P. Z. S.* 1869, p. 471; *G. R. Gr. Hand-list*, ii. p. 245, n. 9417 (1870); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 23 (1873); *Garr. P. Z. S.* 1873, pp. 468, 639, 1874, pp. 250, 256; *Salvad. & D'Alb. Ann. Mus. Civ. Gen.* vii. p. 836 (1875); *Salvad. op. cit.* ix. pp. 43, 206, n. 76 (1876); *Rams. P. Z. S.* 1876, p. 116; *Sharpe, Journ. Linn. Soc., Zool.* xiii. pp. 319, 502 (1877); *Layard, Ibis*, 1878, pp. 276, 280; *Rams. Pr. Linn. Soc. N. S. W.* iii. pp. 104, 294 (1878), iv. pp. 73, 101, n. 174 (1879); *id. Nature*, xx. p. 125 (1879); *Salvad. Ann. Mus. Civ. Gen.* xiv. p. 604 (1879); *D'Alb. Nuova Guin.* pp. 528, 585 (1880); *Salvad. Orn. Pap. e Mol.* iii. p. 169 (1882); *Sclat. P. Z. S.* 1883, pp. 51, 195, 200 (Tenimber Isl.); *id. List Vert. An.* 8th ed. p. 460 (1883); *Forbes, P. Z. S.* 1884, p. 433; *Finsch & Mey. Zeitschr. f. ges. Orn.* 1886, p. 28; *Rams. Tab. List*, p. 18, n. 534 (1888); *Tristr. Ibis*, 1889, p. 558; *id. Cat. Coll. B.* p. 41 (1889); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 286 (1890); *Salvad. Ann. Mus. Civ. Gen.* (2) ix. pp. 491, 589 (1890); *id. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 64 (*Agg. Orn. Pap. e Mol.* p. 190) (1891); *Hartert, Kat. Vogelsammml.* p. 188 (1891); *Collett, Vidensk.-Selsk. Forh. Christ.* 1892, n. 13, p. 10 (Tongoa, N. Hebrides).

Chalcophaps longirostris, *Gould, B. Austr. Introd.* p. lxix, sp. 424 (1848); *Rchnb. Vög. Neuholl.* p. 319, sp. 424 (1850); *Bp. Consp.*

Av. ii. p. 92 (1854); *id. Compt. Rend.* xl. pp. 209, 221, n. 277 (1855); *id. Coup d'œil Ordre Pig.* pp. 48, 59, n. 277 (1855); *Gould, Handb. B. Austr.* ii. p. 119 (1865); *Schleg. N. T. D.* iii. pp. 265, 266 (1866); *Rams. Pr. Linn. Soc. N. S. W.* i. p. 394 (1876), ii. p. 195, n. 522 (1877); *Masters, Pr. Linn. Soc. N. S. W.* ii. p. 275 (1877); *Rams. Tab. List*, pp. 18, note 534 (1888).

Columba javanicoides, *Temm. Mus. Lugd. fide Bp. Compt. Rend.* xliii. p. 948 (1856).

Chalcophaps timorensis, *Bp. Compt. Rend.* xliii. pp. 948, 949 (1856); *Wall. P. Z. S.* 1863, p. 486; *id. Ibis*, 1865, p. 393; *id. J. f. O.* 1866, p. 286; *G. R. Gr. Hand-list*, ii. p. 245, n. 9421 (1870); *Wald. Tr. Zool. Soc.* ix. p. 222 (1875); *Tristr. Cat. Coll. B.* p. 41 (1889); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 286 (1890).

Chalcophaps chrysochlora *a.* timorensis, *Bp. Compt. Rend.* xliii. p. 949 (1856).

Chalcophaps chrysochlora, var., *G. R. Gr. P. Z. S.* 1859, p. 165 (Tanna & Island of Nu).

Peristera moluccensis, part., *Finsch, Neu-Guin.* p. 179 (1865).

Chalcophaps indica, part., *Schleg. N. T. D.* iii. pp. 266, 345 (1866); *id. Mus. P.-B.* Columbæ, pp. 145, 146, 149 (1873); *Rosenb. Malay. Archip.* p. 372 (1878).

Peristera chrysochlora, *Rosenb. Reis naar Zuidoostereil.* p. 81 (1867).

Phaps timoriensis, *Gieb. Thes. Orn.* i. p. 630 (1872).

? Chalcophaps chrysochlora, var. sandwichensis, *Rams. Pr. Linn. Soc. N. S. W.* ii. p. 288 (1878) (Vela Harbour, Sandwich I., New Hebrides), iii. p. 379 (1879) (New Hebrides).

Adult male. Head, neck, upper back, breast, and abdomen vinous, changing into vinous grey towards the abdomen; on the nape a slight bluish tinge; remainder as in *C. indica*: "bill red, with the soft basal part yellowish: feet dull carmine: iris dark brown" (*D'Albertis*). Total length 9·5 inches, wing 6, tail 3·5, bill 0·62, tarsus 1.

Female. Similar to the male but duller: the head, neck, upper back, breast, and abdomen rufous brown, with scarcely any vinous tinge; greyish-white band on the shoulders as in the male: under tail-coverts rufous brown: tail above chestnut-brown, the lateral feathers with a black subapical band: outer tail-feathers grey as in the male.

Young. Also the outer webs of the quills are tinged with rufous-chestnut.

Hab. Timor Group (Timor, Lettie, and Wetter, but not Flores), Timor-laut, S.E. Moluccas (Banda, Kohr), Ké Islands, S.E. New Guinea, New Hebrides, New Caledonia, Australia, and Lord Howe Island.

The birds from the neighbourhood of Port Essington have a longer bill (*C. longirostris*, Gould); also those from Timor-laut have the bill longer than those from N. S. Wales.

a–e. ♂ ♀ ad. sk.	E. Timor.	Wallace Coll.
f. ♂ ad. sk.	E. Timor (*Wallace*).	Gould Coll.
g, h. ♂ ad. et juv. sk.	E. Timor (*Wallace*).	Tweeddale Coll.

i. ♂ ad. sk.	E. Timor (*Wallace*).	Seebohm Coll.
k. Ad. sk.	Timor (*Wallace*).	Salvin-Godman Coll.
l. ♂ ad. sk.	Semao, Timor.	Wallace Coll.
m, *n*. ♂ ♀ ad. sk.	Larat, Timor Laut, Aug., Sept.	H. O. Forbes, Esq. [C.].
o. ? ♀ imm. sk.	Larat, Timor Laut, Sept. (*H. O. Forbes*).	Tweeddale Coll.
p. ♂ ad. sk.	Larat, Timor Laut, Sept. (*H. O. Forbes*).	Salvin-Godman Coll.
q. ♀ imm. sk.	Moloe Is., Tenimber Is., Sept. (*H. O. Forbes*).	Salvin-Godman Coll.
r, *s*. Ad. sk.	Alleya, S.E. New Guinea, Feb., April.	Tweeddale Coll.
t, *u*. Ad. sk.	Astrolabe Mts. (*A. Goldie*).	Seebohm Coll.
v. Ad. sk.	Port Moresby, S. New Guinea (*A. Goldie*).	Salvin-Godman Coll.
w. ♂ ad. sk.	S.E. New Guinea (*A. Goldie*).	Salvin-Godman Coll.
x. Ad. sk.	Australia.	Purchased.
y. Ad. sk.	Australia.	Gould Coll.
z, *a'*. ♀ ad. sk.	Australia (*J. T. Cockerell*).	Salvin-Godman Coll.
b'. Ad. st.	Port Essington.	Capt. Chambers [P.].
c'. Ad. sk.	Somerset, Cape York (*J. T. Cockerell*).	Tweeddale Coll.
d'. ♀ imm. sk.	Somerset, Cape York (*J. T. Cockerell*).	Salvin-Godman Coll.
e'. Ad. sk.	Queensland.	Seebohm Coll.
f'. ♂ ad. sk.	Port Molle, Dec. (*Capt. Stanley*).	Voyage of H.M.S. 'Rattlesnake.'
g'. ♀ ad. sk.	New South Wales	Gould Coll.
h'. Juv. sk.	Liverpool Range, N. S. Wales.	Gould Coll.
i'. Ad. sk.	Melbourne.	Tweeddale Coll.
k', *l'*. ♂ ad. et ♂ imm. sk.	Vaté Is., New Hebrides, June (*C. L. Layard*).	Salvin-Godman Coll.
m'. Ad. sk.	Tanna, New Hebrides, Dec.	J. McGillivray, Esq. [P.].
n'. ♀ ad. sk.	Port Resolution, New Hebrides (*J. McGillivray*).	Eyton Coll.
o'. Ad. sk.	Loyalty Is.	Rev. J. Whitmee [C.].
p'. ♂ ad. sk.	Nu, Port de France, New Caledonia (*J. McGillivray*).	Purchased.
q'. Skeleton.	Australia.	Purchased.

2. Chalcophaps sanghirensis.

Chalcophaps indica, *var.* sanghirensis, *Blas. Braunschw. Anzeig.* 1888, n. 9 (Jan. 11th), p. 86; *id. Russ' Ivis*, 1888, p. 78; *id. Ornis*, 1888, p. 623.

Adult male. Intermediate between the adult male of *C. chrysochlora* and that of *C. indica*; it is like the first in having the crown, occiput, and nape vinous, with a very slight tinge of lead-grey, but it differs in having the forehead and the superciliary stripes white; in the latter respects it resembles the male of *C. indica*, from which it differs in having the crown, occiput, and nape vinous, and not dark lead-grey; there is a triangular vinous spot on the forehead,

just at the base of the culmen: "iris pale brown; bill orange, soft part brown-red; feet cherry-red" (*Platen*). Total length 9·04 inches, wing 5·66, tail 3·30, bill 0·66, tarsus 1·02. (*Mus. Brunswick.*)*

Female. Has no white on the forehead and over the eyes, and is very similar to that of *C. chrysochlora*.

Hab. Great Sanghir Island.

a. ♀? ad. sk. Sanghir Island. Salvin-Godman Coll.

3. Chalcophaps indica.

Green-winged Dove, *Edw. Birds*, i. pl. 14 (E. Indies) (1741); *Lath. Syn.* ii. 2, p. 625, n. 14 (1783).

Palumbus amboinensis, *Briss. Orn.* i. p. 150, t. 15. f. 1 (1760) (Amboina).

Columba indica, *Linn. S. N.* i. p. 284, n. 29 (1766) (*ex Edwards*); *Penn. Faun. Ind. in Forst. Zool. Ind.* p. 41 (1781); *Jacq. Beytr.* p. 35, n. 29 (1784); *Gm. S. N.* i. p. 785, n. 29 (1788); *Lath. Ind. Orn.* ii. p. 598, n. 16 (1790); *Hayes, Portr. of rare & cur. B.* ii. pl. 79 (1799); *Vieill. N. D.* xxvi. p. 362 (1818).

Tourterelle de Java, *D'Aubent. Pl. Enl.* 177.

Turvert, n. 3, *Buff. Hist. Nat. Ois.* ii. p. 556 (1771).

Pigeon verd à tête grise d'Antigue, *Sonner. Voy. Nouv. Guin.* p. 112, pl. 66 (1776) (Panay).

Columba javanensis, *Müll. S. N. Suppl.* p. 133, n. 35 *g* (1776); *Cass. Pr. Ac. Philad.* 1864, p. 248.

Blue-crowned Turtle, *Lath. Syn. Av.* ii. 2, p. 655, n. 52 (1783).

Columba turtur viridis, *Bodd. Tabl. Pl. Enl.* p. 11 (1783).

Columba pileata, *Scop. Del. Flor. et Faun. Insubr.* ii. p. 94, n. 96 (1786) (*ex Sonnerat*).

Columba albicapilla, *Gm. S. N.* i. p. 775, n. 8 (1788) (*ex Sonnerat*); *Lath. Ind. Orn.* ii. p. 597, n. 11 (1790); *Vieill. N. D.* xxvi. p. 368 (1818).

Columba javanica, *Gm. S. N.* i. p. 781, n. 55 (1788) (*ex Pl. Enl.* 177); *Lath. Ind. Orn.* ii. p. 610, n. 60 (1790); *Bonn. Tabl. Enc. Méth.* p. 237 (1790); *Temm. Pig. et Gallin.* pp. 252, 468 (1813); *Vieill. N. D.* xxvi. p. 381 (1818); *Steph. Gen. Zool.* xi. p. 47 (1819); *Horsf. Tr. Linn. Soc.* xiii. 1, p. 183 (1821); *Raffl. Tr. Linn. Soc.* xiii. 2, p. 317 (1822); *Desm. Dict. Sc. Nat.* xl. p. 332 (1826); *Less. Tr. d'Orn.* p. 471 (part.) (1831); *id. Compl. de Buff., Ois.* viii. p. 43 (1837); *id. op. cit.* 2nd. ed. p. 280 (part.) (1838); *Eyt. P. Z. S.* 1839, p. 107; *S. Müll. Verh. Land- en Volkenk.* p. 109 (1839-44); *Temm. Tabl. Pl. Enl.* p. 81 (1840).

Columba cyanocephala, *Gm.* (*nec Linn.*) *S. N.* i. p. 781, n. 56 (1788) (*ex Latham*).

Columba caeruleocephala, *Lath. Ind. Orn.* ii. p. 610, n. 61 (1790); *Vieill. N. D.* xxvi. p. 389 (1818).

Columba cyanopileata, *Bonn. Tabl. Enc. Méth.* p. 238 (1790) (*ex Brisson*).

Columba griseocapillata, *Bonn. Tabl. Enc. Méth.* p. 238, pl. 77. f. 2 (1790) (*ex Sonnerat*).

? Columba aurata, *Bonn. Tabl. Enc. Méth.* p. 252 (1790) (Chine) (ex Holandre).

Columba superciliaris, *Wagl. Syst. Av.* Columba, sp. 80 (1827).

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* Dr. W. Blasius kindly sent me the types of this species for inspection.

Monornis perpulchra, *Hodgs. Gray's Zool. Misc.* p. 85 (1844) (Nepal).
Ptilinopus superciliaris, *Hartl. Syst. Verz.* p. 97 (1844).
Chalcophaps indica, *G. R. Gr. List Gallinæ Brit. Mus.* p. 18 (1844); *id. Gen. B.* ii. p. 477, n. 1 (1844); *Blyth, J. A. S. B.* xiv. 2, p. 859 (1845); *id. Ann. & Mag. N. H.* xix. p. 99 (1847); *Strickl. ibid.* p. 101 (note) (1847); *Rchnb. Av. Syst. Nat.* p. xxv (1852); *Bp. Consp. Av.* ii. p. 91 (1854); *id. Compt. Rend.* xl. pp. 208, 209, 222, n. 273 (1855); *id. Coup d'œil Ordre Pig.* pp. 46, 47, 59, n. 273 (1855); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 59 (1856); *Moore, P. Z. S.* 1859, p. 467; *Rchnb. Tauben*, i. p. 46, t. 260. ff. 1441–42 (1862), ii. p. 166 (1862); *Sclat. P. Z. S.* 1861, p. 365, 1862, p. 321, 1864, p. 139; *Pels. Novar. Reis., Vög.* pp. 109, 162 (1865); *Schleg. N. T. D.* iii. pp. 265, 266, 345 (part.) (1866); *Blyth, Ibis*, 1867, p. 151; *G. R. Gr. Hand-list*, ii. p. 244, n. 9415 (1870); *Swinh. Ibis*, 1870, p. 356; *Elwes, Ibis*, 1870, p. 528; *Swinh. P. Z. S.* 1871, p. 397; *Wald. Tr. Zool. Soc.* viii. pp. 86, 114 (1872); *Holdsw. P. Z. S.* 1872, p. 467; *Elwes, P. Z. S.* 1873, p. 655; *Hume, Nests & Eggs*, p. 509 (1873); *Schleg. Mus. P.-B.* Columbæ, p. 145 (part.) (1873); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 23 (1873); *Salvad. Ucc. Born.* p. 299 (1874); *Hume, Str. Feath.* ii. p. 481 (1874); *Wald. Trans. Zool. Soc.* ix. p. 221 (1875); *Hume, Str. Feath.* iii. p. 165 (1875), iv. p. 404 (1876); *Salvad. Ann. Mus. Civ. Gen.* viii. p. 383 (1876); *Brügg. Abh. nat. Ver. Brem.* v. p. 87 (1876); *Sharpe, Tr. Linn. Soc., Zool.* i. pp. 348, 353 (1876); *Salvad. Ann. Mus. Civ. Gen.* ix. p. 206, n. 77 (1876); *Rowl. Orn. Misc.* i. p. 119, pl. 51 (1877); *Oust. & David, Ois. Chine*, p. 384 (1877); *Rosenb. Malay. Archip.* pp. 275, 407 (1878); *Anders. Yunn. Exped.* p. 667 (1878); *Hume & Davids. Str. Feath.* vi. p. 424 (1878); *Hume, Str. Feath.* viii. p. 110 (1879); *Tiraut, Bull. Com. Agr. et Ind. Cochinch.* (3) i. p. 142, n. 254 (1879); *Meyer, Ibis*, 1879, p. 138; *Legge, B. of Ceyl.* p. 714 (1880); *Kelh. Ibis*, 1881, p. 528; *Oates, Str. Feath.* x. p. 235 (1882); *Vorderm. N. T. N. I.* xlii. p. 228 (1882); *Salvad. Orn. Pap. e Mol.* iii. p. 173 (1882); *Salv. Cat. B. Strickl. Coll.* p. 552 (1882); *Oates, B. Brit. Burm.* p. 297 (1883); *Sclat. List Vert. An.* 8th ed. p. 459 (1883); *Pleske, Bull. Acad. Pétersb.* xxix. p. 535 (1884); *Vorderm. N. T. N. I.* xlvi. p. 236 (1886); *Snellem. Sum.-Exp.* i. *Vog.* p. 48 (1887); *Salvad. Ann. Mus. Civ. Gen.* (2) iv. p. 561 (1887) (Nias), vii. p. 424 (1889); *Vorderm. N. T. N. I.* xlix. p. 413 (1889); *Anders. Journ. Linn. Soc., Zool.* xxi. p. 152 (1889) (Mergui); *Brisay, Bull. Soc. Acclim.* 1889, p. 57; *Tristr. Cat. Coll. B.* pp. 41, 269 (1889); *Steere, List*, p. 24 (1890); *Vorderm. N. T. N. I.* l. p. 508 (1890); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 286 (1890); *Hartert, Kat. Vogelsamml.* p. 188 (1891); *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 64 (*Agg. Orn. Pap. e Mol.* p. 190) (1891); *Vorderm. N. T. N. I.* li. p. 422 (1892) (Basilan); *Sharpe, Ibis*, 1892, p. 442.
Chalcophaps indicus, *Tick. in Blyth, J. A. S. B.* xiv. 2, p. 848 (1845); *id. Ann. & Mag. N. H.* xix. p. 100 (note) (1847); *Blyth, J. A. S. B.* xv. p. 471 (1846); *id. Cat. B. Mus. A. S. B.* p. 237, n. 1440 (1849); *Gould, P. Z. S.* 1859, p. 149; *Blyth, Mouat's App.* p. 362 (1863); *Jerd. B. of Ind.* iii. p. 484 (1864); *Beav. Ibis*, 1867, p. 332; *Blyth, Ibis*, 1868, p. 133; *Ball, J. A. S. B.* xli. pt. 2, p. 287 (1872); *id. Str. Feath.* i. p. 80 (1873); *Wald. Ibis*, 1873, p. 315; *Hume, Str. Feath.* ii. pp. 70, 75, 80, 269 (1874); *Ball, Str. Feath.* ii. p. 425 (1874); *Blyth & Wald. B. Burm.* p. 147 (1875).
Chalcophaps javanica, *Bp. Consp. Av.* ii. p. 91 (1854); *id. Compt. Rend.* xl. pp. 208, 209, 222, n. 274 (1855); *id. Coup d'œil*

Orre Pig. pp. 46, 47, 59, n. 274 (1855); *Rchnb. Tauben*, i. p. 46 (1862), ii. p. 166 (1862); *Wall. P. Z. S.* 1863, p. 486; *id. Ibis*, 1865, p 393; *id. J. f. O.* 1866, p. 484; *Sousa, Mus. Nac. Lisb.* Columbæ, p. 23 (1873).

Chalcophaps augusta, *Bp. Consp. Av.* ii. p. 92 (1854) (patr. ignota); *id. Compt. Rend.* xl. pp. 209, 221, n. 275 (1855); *id. Coup d'œil Ord. Pig.* pp. 47, 59, n. 275 (1855); *Schleg. N. T. D.* iii. pp. 265, 266 (1866); *Blyth, Ibis*, 1868, p. 133 (Nicobars); *G. R. Gr. Hand-list*, ii. p. 244, n. 9419 (1870); *Ball, Str. Feath.* i. p. 81 (1873).

Peristera bornensis, *S. Müll. Mus. Lugd.* (juv.); *Bp. Consp. Av.* ii. p. 91 (1854); *id. Compt. Rend.* xl. p. 208 (1855); *id. Coup d'œil Ordre Pig.* p. 47 (1855).

Chalcophaps bornensis, *Bp. Compt. Rend.* xliii. pp. 947, 948 (1856); *Wall. Ibis*, 1865, p. 393; *id. J. f. O.* 1866, p. 284.

Chalcophaps javanica, *a.* bornensis, *Bp. Compt. Rend.* xliii. p. 949 (1856).

Chalcophaps moluccensis, *G. R. Gr. P. Z. S.* 1860, p. 361; *Wall. P. Z. S.* 1862, pp. 335, 345 (Sula I.), 1863, p. 34; *id. Ibis*, 1865, p. 393; *id. J. f. O.* 1866, p. 284; *Schleg. N. T. D.* iii. pp. 265, 266 (1866); *G. R. Gr. Hand-list*, ii. p. 245, n. 9420 (1870); *Wald. Tr. Zool. Soc.* ix. p. 222 (1875); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 286 (1890).

Chalcophaps albicapilla, *Rchnb. Tauben*, i. p. 48 (1862), ii. p. 166, t. i. f. 10 (1862).

Goura javanica, *Schleg. Dierent.* p. 208 (1864).

Peristera moluccensis, *Finsch, Neu-Guin.* p. 179 (part.) (1865).

Chalcophaps formosana, *Swinh. Ibis*, 1865, pp. 357 (♂), 540 (♀); *G. R. Gr. Hand-list*, ii. p. 245, n. 9424 (1870); *Swinh. P. Z. S.* 1871, p. 397; *Elwes, P. Z. S.* 1873, p. 667.

Chalcophaps, sp., *Mart. J. f. O.* 1866, p. 24, sp. 137.

Chalcophaps pileata, *G. R. Gr. Hand-list*, ii. p. 245, n. 9422 (1870).

Chalcophaps javanensis, *G. R. Gr. Hand-list*, ii. p. 245, n. 9416 (1870); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 286 (1890).

Phaps albicapilla, *Gieb. Thes. Orn.* i. p. 630 (1872), iii. p. 88 (1877).

Phaps augustæ, *Gieb. op. cit.* i. p. 630, iii. p. 89.

Phaps javanica, *Gieb. op. cit.* i. p. 630 (1872).

Phaps formosæ, *Gieb. op. cit.* i. p. 630, iii. p. 89.

Phaps indica, *Gieb. op. cit.* i. p. 630, iii. p. 90.

Phaps moluccensis, *Gieb. op. cit.* i. p. 630.

Chalophaps mariæ, "*Bp.*" *Blyth* (*errore pro* augusta), *Birds of Burm.* p. 147 (1875).

Chalcophaps javanus, *Rosenb. Reis naar Zuidoostereil.* p. 8 (1875).

Chalcophaps sp., *Bocc. Ann. Mus. Civ. Gen.* vii. p. 716 (Miosnom and Koffiao) (1875).

Adult male. Forehead and supercilium white, changing into bluish lead-colour on the crown and nape; back and wings golden green, the upper feathers of the back edged with bluish lead-colour; lower back, rump, and upper tail-coverts blackish, sides of the rump greyish; on the lower back two greyish bars, and between them a band of coppery bronze, the feathers with dark edges; cheeks, throat, sides of the neck, and breast vinous purple, becoming greyish vinous on the abdomen; basal under tail-coverts ashy, the longest blackish; smaller wing-coverts on the shoulders vinous grey, tipped with white, producing a white bar; quills brown, with the inner webs towards the base cinnamon, like the under wing-coverts; inner

secondaries golden green, like the greater part of the wing; tail dusky black, the two or three outer feathers grey with a black subterminal band and grey tip: bill coral-red, dusky at the base; orbits livid fleshy; irides dark brown; feet dull purple-red. Total length 10·5 inches, wing 5·75, tail 3·75, bill 0·7, tarsus 1.

Female. Forehead dull grey, and the supercilium narrower; occiput, nape, and upper back brown; underparts reddish brown, minutely speckled with grey points; smaller wing-coverts on the shoulders brown, with scarcely any paler tips; four central tail-feathers brown-black, next two pairs tinged with rufous chestnut towards the base; two outer feathers as in the male.

Young. Dusky brown above, with little green, and barred below, recalling, says Blyth, the colouring of *Macropygia*.

Hab. From India, Ceylon, Burmah, and S. China, through the Malay Peninsula and the Malay Archipelago to W. New Guinea and the Islands in Geelvink Bay.

a, *b*. ♂ ad. sk.	Ceylon.	Gould Coll.
c, *d*. ♂ ♀ ad. sk.	Ceylon, March, Dec. (*S. Chapman*).	Tweeddale Coll.
e. ♂ ad. sk.	Ceylon.	Tweeddale Coll.
f. ♂ ad. sk.	Ceylon.	Salvin-Godman Coll.
g. ♂ ad. sk.	Ceylon, Dec. (*Messrs. Hart*).	Hume Coll.
h. ♀ ad. sk.	Ceylon.	Cuming Coll.
i, *k*. ♂ ♀ ad. sk.	Anjango, Travancore, Dec.	Hume Coll.
l, *m*. ♂ ♀ ad. sk.	Mynall, S. Travancore, Jan., Feb. (*Bourdillon*).	Hume Coll.
n. ♀ ad. sk.	Mynall, S. Travancore, Nov.	F. W. Bourdillon, Esq. [C.].
o-*r*. ♂ ♀ ad. sk.	Malabar.	Tweeddale Coll.
s. ♂ ad. sk.	Mysore.	W. Davison, Esq. [P.].
t. ♀ ad. sk.	Madras.	Rev. H. H. Baber [P.].
u. ♂ ad. sk.	Burliar (*R. G. W. R.*).	Tweeddale Coll.
v, *w*. ♂ ♀ ad. sk.	Burliar, Oct.	Hume Coll.
x. ♀ ad. sk.	Coonoor Ghât, Oct. (*R. G. W. R.*).	Tweeddale Coll.
y, *z*. ♀ ad. sk.	Coonoor, Feb. (*W. Davison*).	Salvin-Godman Coll.
a', *b'*. ♂ ad. sk.	Mundlah, April (*R. Thompson*).	Hume Coll.
c'. ♂ ad. sk.	Kaladoonger, Dec.	Hume Coll.
d'. ♂ ad. sk.	Mussorie.	Salvin-Godman Coll.
e', *f'*. ♂ ad. sk.	Mussorie.	Hume Coll.
g'. Juv. sk.	Kumaon (*Strachey*).	India Museum [P.].
h', *i'*. ♂ ♀ ad. sk.	Dehra, Feb., Dec. (*G. King*).	Hume Coll.
k'. ♀ ad. sk.	Almorah, Oct.	Hume Coll.
l', *m'*, *n'*. ♂ ♀ ad. sk.	Nepal.	B. H. Hodgson, Esq. [P.]. (Types of *Monornis perpulchra*, Hodgs.)
o', *p'*, *q'*. ♂ ♀ ad. sk.	Native Sikhim, May, June, Sept. (*L. Mandelli*).	Hume Coll.
r'–*x'*. ♂ ♀ ad. sk.	Sikhim, Jan., April, June, Sept., Nov., Dec. (*L. Mandelli*).	Hume Coll.
y', *z'*, *a''*. ♂ ♀ ad. sk.	Sikhim (*L. Mandelli*).	Seebohm Coll.
b''. ♀ ad. sk.	Rishah, 3500 ft.	Tweeddale Coll.

c'', *d''*, *e''*. ♂ ♀ ad. sk.	Darjeeling.	Seebohm Coll.
f''. ♀ ad. sk.	Darjeeling.	Gould Coll.
g''. ♂ ad. sk.	Darjeeling.	Hume Coll.
h''. ♂ ad. sk.	Bhotan Doars, Feb. (*L. Mandelli*).	Hume Coll.
i''. ♀ ad. sk.	Calcutta, May.	Hume Coll.
k''. ♂ ad. sk.	Tipperah.	Hume Coll.
l'', *m''*, *n''*. ♂ ♀ ad. sk.	Dacca.	Hume Coll.
o'', *p''*. ♀ juv. sk.	Dibrughur, April (*J. R. Cripps*).	Hume Coll.
q''. Juv. sk.	Khasia Hills (*Griffiths*).	India Museum [P.].
r'', *s''*. ♂ ad. et ♂ juv. sk.	N. Khasia Hills, Jan., Dec. (*A. W. Chennell*).	Tweeddale Coll.
t'', *u''*. ♂ ad. et ♂ imm. sk.	Karen Hills, Jan. (*R. G. W. R.*).	Tweeddale Coll.
v''. ♀ ad. sk.	Burmah (*Major Houghton*).	Salvin-Godman Coll.
w''–*a*^{3}. ♂ ♀ ad. sk.	Tonghoo, Jan., Feb., April, Nov., Dec. (*R. G. W. R.*).	Tweeddale Coll.
b^3–*c*^{3}. ♂ ♀ ad. sk.	Pegu, Feb. (*E. W. Oates*).	Hume Coll.
d^3, *e*^{3}. ♂ ♀ ad. sk.	Pegu, Feb.	E. W. Oates, Esq. [C.].
f^3, *g*^{3}, *h*^{3}. ♂ ♀ ad. et ♀ juv. sk.	Rangoon, June, Dec. (*R. G. W. R.*).	Tweeddale Coll.
i^3. ♂ ad. sk.	Dargwin, Jan. (*W. Davison*).	Hume Coll.
k^3. ♂ ad. sk.	Thatone.	Hume Coll.
l^3. ♂ ad. sk.	Moulmein, Nov. (*W. Davison*).	Hume Coll.
m^3. ♀ imm. sk.	Meetan, Feb. (*W. Davison*).	Hume Coll.
n^3–*q*^{3}. ♂ ♀ ad. et imm. sk.	Amherst, Jan., June (*W. Davison*).	Hume Coll.
r^3. ♂ juv. sk.	**Meeta Myo, April (*W. Davison*).**	**Hume Coll.**
s^3. ♂ ad. sk.	Mergui, July (*W. Davison*).	Hume Coll.
t^3–*x*^{3}. ♂ ♀ ad. sk.	Bankasoon, April–June (*W. Davison*).	Hume Coll.
y^3. ♂ ad. sk.	Malawoon, Feb. (*W. Davison*).	Hume Coll.
z^3–*c*^{4}. ♂ ♀ ad. sk.	Penang (*Cantor*).	India Museum [P.]
d^4. ♂ ad. sk.	Dingding Is., Feb. (*W. Davison*).	Hume Coll.
e^4–*h*^{4}. ♂ ad. sk.	Klang, May, Aug. (*W. Davison*).	Hume Coll.
i^4, *k*^{4}. ♂ ♀ imm. et ad. sk.	Kurroo, Nov. (*W. Davison*).	Hume Coll.
l^4, *m*^{4}, *n*^{4}. ♂ ♀ ad. sk.	Malacca (*Cantor*).	India Museum [P.].
o^4–*r*^{4}. ♂ ♀ ad. et juv. sk.	Malacca (*Maingay*).	Tweeddale Coll.
s^4. ♀ ad. sk.	Gunnong Pulai, Johore, Aug. (*W. Davison*).	Hume Coll.
t^4. ♂ ad. sk.	S. Andamans, Aug. (*R. J. Wimberley*).	Hume Coll.
u^4–*y*^{4}. ♂ ♀ ad. et ♂ juv. sk.	S. Andamans, Jan., May (*R. G. W. R.*).	Tweeddale Coll.
z^4–*f*^{5}. ♂ ♀ ad. et juv. sk.	Port Mouat, S. Andamans, Jan., April (*W. Davison*).	Hume Coll.
g^5. ♀ juv. sk.	Port Mouat, S. Andamans, Jan. (*W. Davison*).	Salvin-Godman Coll.
h^5. ♀ ad. sk.	Strait Is., S. Andamans, April (*W. Davison*).	Hume Coll.
i^5. ♂ ad. sk. [var.]	Pt. Blair, S. Andamans.	Hume Coll.
k^5. ♂ ad. sk.	Kondul Is., Nicobars, March.	Hume Coll.

l. ♀ ad. sk.	Trinkut Is., Nicobars, March (*W. Davison*).	Hume Coll.
m[1], *n*[1], *o*[1]. ♂ ♀ ad. sk.	Trinkut Is., Nicobars, Jan., Feb., Dec. (*R. J. Wimberley*).	Tweeddale Coll.
p[1]. ♂ ad. sk.	Bompoka Is., Nicobars, Jan. (*W. Davison*).	Hume Coll.
q[1], *r*[1]. ♂ ♀ ad. sk.	Camorta Is., Nicobars, Feb. (*W. Davison*).	Hume Coll.
s[1], *t*[1]. ♂ ♀ ad. sk.	Camorta Is., Nicobars, Dec. (*R. J. Wimberley*).	Tweeddale Coll.
u[1]. ♀ ad. sk.	Nancowry Is., Nicobars, Dec. (*R. J. Wimberley*).	Tweeddale Coll.
v[1]. Juv. sk.	Lampong, S.E. Sumatra (*E. C. Buxton*).	Tweeddale Coll.
w[1], *x*[1]. ♂ ad. et juv. sk.	Java (*Horsfield*).	India Museum [P.].
y[1]–*b*[2]. ♂ ad. et juv. sk.	Java.	Tweeddale Coll.
c[2], *d*[2]. ♂ ad. sk.	Java (*Wallace*).	Gould Coll.
e[2]. ♂ ad. sk.	E. Java.	Wallace Coll.
f[2]. ♀ ad. sk.	Lombock (*Wallace*).	Tweeddale Coll.
g[2], *h*[2]. ♂ ad. sk.	Lombock.	Wallace Coll.
i[2]. ♂ ad. sk.	Hainan, China, Feb. (*R. Swinhoe*).	Seebohm Coll.
k[2], *l*[2], *m*[2]. ♂ ♀ ad. et ♂ juv. sk.	Formosa, March, May, Nov. (*R. Swinhoe*). (Types of *C. formosana*, Swinh.)	Seebohm Coll.
n[2], *o*[2]. ♂ ad. et ♂ juv. sk.	Baram, N.W. Borneo, July, Aug.	C. Hose, Esq. [C.].
p[2]. ♀ ad. sk.	Sarawak.	Tweeddale Coll.
q[2]. Juv. sk.	Sarawak (*Everett*).	Salvin-Godman Coll.
r[2]. ♀ ad. sk.	Philippine Is.	Cuming Coll.
s[2]. ♂ ad. sk.	Luzon, Jan. (*A. B. Meyer*).	Salvin-Godman Coll.
t[2]. ♀ ad. sk.	Manilla, Feb. (*A. B. Meyer*).	Salvin-Godman Coll.
u[2]. ♂ ad. sk.	San Mateo, Manilla, Feb. (*A. H. Everett*).	Salvin-Godman Coll.
v[2], *w*[2]. ♂ ♀ ad. sk.	Monte Alban, Feb., March (*A. H. Everett*).	Tweeddale Coll.
x[2], *y*[2]. ♂ ♀ ad. sk.	Negros, March (*A. B. Meyer*).	Tweeddale Coll.
z[2]. ♂ juv. sk.	Valencia, Aug. (*A. H. Everett*).	Tweeddale Coll.
a[3], *b*[3]. ♂ ♀ ad. sk.	Cebu, April (*A. H. Everett*).	Tweeddale Coll.
c[3]. ♂ ad. sk.	Cebu, April (*A. H. Everett*).	Salvin-Godman Coll.
d[3]. ♂ ad. sk.	Surigao, June (*A. H. Everett*).	Tweeddale Coll.
e[3]. ♂ ad. sk.	Zamboanga, March (*A. H. Everett*).	Tweeddale Coll.
f[3]. ♀ ad. sk.	Zamboanga, March (*A. H. Everett*).	Salvin-Godman Coll.
g[3], *h*[3]. ♂ ♀ ad. sk.	Basilan, May, June (*A. H. Everett*).	Tweeddale Coll.
i[3], *k*[3]. ♂ ad. sk.	Celebes.	Tweeddale Coll.
l[3]. ♀ ad. sk.	Menado, N. Celebes.	Tweeddale Coll.
m[3]. ♂ ad. sk.	Ternate (*Wallace*).	Gould Coll.
n[3]. ♂ ad. sk.	Gilolo.	Wallace Coll.
o[3]. ♀ ad. sk.		
p[3], *q*[3], *r*[3]. ♀ ad. et ♂ imm. sk. et ad. st.	Batchian. (Types of *Chalcophaps moluccensis*, Gr.)	Wallace Coll.
s[3], *t*[3]. ♀ ad. sk.	Bouru.	Wallace Coll.
u[3], *v*[3]. ♂ ♀ ad. sk.	Amboyna (*Wallace*).	Gould Coll.

w^7. ♂ ad. sk.	Amboyna, May (*H. O. Forbes*).	Tweeddale Coll.
x^7. ♀ ad. sk.	E. Ceram (*A. R. Wallace*).	Tweeddale Coll.
y^7. ♂ ad. sk.	[Aru Is.]	Tweeddale Coll.
z^7. Skeleton.	India.	Purchased.

4. Chalcophaps natalis.

Chalcophaps natalis, *Lister, P. Z. S.* 1888, p. 522 (Christmas I., Indian Ocean).

The *adult male* cannot be distinguished from some male specimens of *C. indica*—the bill is not stouter, nor the white and pale slate streak on the shoulder smaller, but the *female* has the upper tail-coverts of a pure cinnamon colour, like the central tail-feathers, also the under tail-coverts are of a cinnamon colour without blackish tips; in the latter respect it resembles *C. stephani*, and also as regards the rufous-cinnamon colour of the neck, upper back, and breast. Total length about 9·5 inches, wing 5·5, bill 0·68, tarsus 1·05.

Hab. Christmas I., Indian Ocean.

a, b, c. ♂ ♀ ad. sk.	Christmas I.	J. J. Lister, Esq. [P.]. (Types of species.)

5. Chalcophaps stephani.

Peristere d'Étienne, *Hombr. & Jacq. Voy. Pôle Sud, Atlas*, pl. 28. f. 2 (1846) (types examined, New Guinea, St. George Isl.).

Chalcophaps (d'Étienne), *G. R. Gr. Gen. B.* App. p. 24 (1849).

Chalcophaps stephani, *Rchnb. Syn. Av.* Columbariæ, *Novit.* t. 259. f. 2595 (1851); *Pucher. & Jacq. Voy. Pôle Sud, Zool.* iii. p. 119 (1853); *Hartl. J. f. O.* 1854, p. 166; *Bp. Consp. Av.* ii. p. 92 (1854); *id. Compt. Rend.* xl. pp. 210, 221, n. 278 (1855); *id. Coup d'œil Ordre Pig.* pp. 49, 59, n. 278 (1855); *Sclat. Journ. Pr. Linn. Soc.* ii. p. 168, n. 150 (1858); *G. R. Gr. P. Z. S.* 1858, p. 196, 1859, p. 159; *id. Cat. B. New Guin.* pp. 49, 61 (1859); *id. Cat. B. Trop. Isl.* p. 45 (1859); *id. P. Z. S.* 1861, p. 437; *Rchnb. Tauben*, i. p. 47, t. 259. f. 2595 (1862); *Rosenb. N. T. N. I.* xxv. p. 250, n. 241 (1863); *id. J. f. O.* 1864, p. 133, n. 241; *Wall. Ibis*, 1865, p. 394; *id. J. f. O.* 1866, p. 284; *Schleg. N. T. D.* iii. pp. 265, 267, 345 (1866); *G. R. Gr. Hand-list*, ii. p. 245, n. 9418 (1870); *Wald. Trans. Zool. Soc.* viii. pp. 85, 114 (1872); *Schleg. Mus. P.-B.* Columbæ, p. 151 (1873); *Becc. Ann. Mus. Civ. Gen.* vii. p. 715 (1875); *Salvad. ibid.* p. 791 (1875), ix. pp. 44, 206, n. 78 (1876); *Brügg. Abh. naturw. Ver. Brem.* v. p. 87 (1876); *Rams. Pr. Linn. Soc. N. S. W.* i. p. 374 (1876); *Salvad. Ann. Mus. Civ. Gen.* x. p. 160 (1877); *Sharpe, Journ. Linn. Soc., Zool.* xii. p. 502 (1877); *Sclat. P. Z. S.* 1877, p. 111, 1878, pp. 289, 671; *Salvad. Atti R. Ac. Sc. Tor.* xiii. p. 324 (1878) (Tarawai); *Rams. Pr. Linn. Soc. N. S. W.* iii. p. 294 (1878), iv. p. 101, n. 175 (1879); *Finsch, P. Z. S.* 1879, p. 13 (Duke of York Isl.); *D'Alb. & Salvad. Ann. Mus. Civ. Gen.* xiv. p. 123 (1879); *Salvad. ibid.* p. 664 (1879); *Rosenb. Malay. Archip.* pp. 275, 372, 396, 561 (1879); *D'Alb. Nuova Guin.* pp. 582, 585, 588 (1880); *Salvad. Orn. Pap. e Mol.* iii. pp. 178, 562 (1882); *Finsch, Vög. d. Südsee*, p. 19 (1884) (New Britain); *Pleske, Bull. Acad. Pétersb.* xxix.

p. 535 (1884) (Ternate); *Nehrk. J. f. O.* 1885, p. 34 (Waigiou); *Meyer, Zeitschr. f. ges. Orn.* 1886, p. 37 (Kafu); *Blas. Zeitschr. f. ges. Orn.* 1886, pp. 137, 208; *Tristr. Cat. Coll. B.* p. 41 (1889); *Hein. & Reknw. Nomencl. Mus. Hein. Orn.* p. 286 (1890); *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 64 (*Agg. Orn. Pap. e Mol.* p. 190 (1891).

Peristera albifrons, *Temm. Mus. Lugd. fide Bp. Consp. Av.* ii. p. 92 (1854); *id. Compt. Rend.* xl. p. 210 (1855); *id. Coup d'œil Ordre Pig.* p. 48 (1855).

Chalcophaps albifrons, *Bp.* 1849, *fide Bp. Consp. Av.* ii. p. 92 (1854).

? Carpophaga (!) etiennei, "*Bp.*," *Finsch, Neu-Guin.* p. 178 (1865) (Celebes); *Blas. J. f. O.* 1883, p. 116.

Peristera stephani, *Finsch, Neu-Guin.* p. 179 (1865).

Chalcophaps hombroni, *Wall. Ibis*, 1865, p. 394, n. 113 (♀); *id. J. f. O.* 1866, p. 284; *G. R. Gr. Hand-list*, ii. p. 245, n. 9423 (1870).

Chalcophaps wallacei, *Brügg. Abh. naturw. Ver. Brem.* v. p. 464 (1876) (Celebes); *Blas. J. f. O.* 1883, pp. 139, 162.

Phaps stephani, *Gieb. Thes. Orn.* i. p. 630 (1872), iii. p. 91 (1877).

Phaps hombroni, *Gieb. op. cit.* i. p. 630, iii. p. 89.

Adult male. Forehead white, abruptly defined; crown, occiput, nape, mantle, scapulars, shoulders, and breast vinous cinnamon, with a purple lustre, nearly wanting on the scapulars and breast; lower back, rump, and upper tail-coverts brown-chestnut; on the lower back two bands of a light cinnamon colour, and between them a dark brown band with some bronze reflections; abdomen cinnamon, under tail-coverts brown-chestnut; median and greater wing-coverts and outer webs of tertials metallic green; quills on the outer webs and at the tips brown, the inner web, except at the tip, cinnamon, like the under wing-coverts; tail rufous brown, the four central feathers uniform, the lateral ones brighter rufous with a subterminal black band, and the tip rufous; the outer feathers grey towards the base: "iris brown; bill coral-red, carmine over the nostrils; feet dull carmine" (*D'Albertis*). Total length about 9 inches, wing 5·6, tail 3·5, bill 0·62, tarsus 0·9.

Female. Differs from the male in having the forehead dark grey; the rufous-cinnamon colour of the upper parts and breast is duller, with scarcely any purple lustre.

Young. Brown, varied with cinnamon colour; forehead ashy rufous or whitish rufous; feathers of the upper and underparts brown, tipped with rufous-cinnamon; upper tail-coverts and greater wing-coverts almost entirely cinnamon.

Hab. Celebes, and Papuan Islands as far as the Duke of York Islands, but not in the Moluccas!

a. ♂ ad. sk.	Celebes.	Gould Coll.
b, c. ♂ ad. sk.	Menado, N. Celebes.	Wallace Coll.
d. ♂ ad. sk.	Menado, N. Celebes.	Tweeddale Coll.
e. ♂ juv. sk.	Waigiou (*Wallace*).	Gould Coll.
f. ♀ ad. sk.	Mysol (*Wallace*).	Gould Coll.
	(One of the types of *C. hombroni*, Wall.)	
g. ♀ juv. sk.	Mysol (*Wallace*).	Tweeddale Coll.
h. ♀ ad. sk.	New Guinea (*Wallace*).	Salvin-Godman Coll.
i. Juv. sk.	New Guinea.	Wallace Coll.

k, l. ♂ ad. et ♂ juv.	Dorey.	Wallace Coll. (Types of *C. hombroni*, Wall.)
m. ♂ ad. sk.	N.W. New Guinea.	Salvin-Godman Coll.
n. ♀ imm. sk.	Amberbaki, N.W. New Guinea, May.	Salvin-Godman Coll.
o. ♀ ad. sk.	Port Moresby (*A. Goldie*).	Salvin-Godman Coll.
p. ♀ ad. sk.	Port Moresby.	J. Broadbent, Esq. [C.].
q. ♀ juv. sk.	S.E. New Guinea.	T. Hunstein, Esq. [C.].
r. ♀ ad. sk.	S.E. New Guinea.	Sharpe Coll.
s. ♂ ad. sk.	S.E. New Guinea (*A. Goldie*).	Salvin-Godman Coll.
t, u. ♂ ♀ ad. sk.	Aru Islands (?).	Gould Coll.
v, w, x. ♂ ♀ ad. sk.	Duke of York Is. (*Rev. G. Brown*).	Salvin-Godman Coll.
y, z. ♂ ♀ ad. sk.	Duke of York Is. (*Rev. G. Brown*).	Tweeddale Coll.

6. Chalcophaps mortoni.

Chalcophaps chrysochlora, *Rams.* (*nec Gould*) *Pr. Linn. Soc. N. S. W.* iv. p. 73, n. 25 (1879) (Guadalcanar); *Tristr. Ibis*, 1882, p. 144, n. 35, p. 146.

Chalcophaps mortoni, *Rams. Pr. Linn. Soc. N. S. W.* vi. p. 725 (1881); *id.* (?) *Nature*, vol. 25, pp. 282, 355; *Salvad. Ann. Mus. Civ. Gen.* xviii. p. 429, n. 21 (1882); *id. Orn. Pap. e Mol.* iii. p. 562 (1882); *Rams. Pr. Linn. Soc. N. S. W.* vii. pp. 37, 667 (♂) (1882) (Solomon Isls.); *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 64 (*Agg. Orn. Pap. e Mol.* p. 190) (1891).

Chalcophaps stephani, *Grant* (*nec P. & J.*), *P. Z. S.* 1888, p. 201 (Aola, Guadalcanar).

There is a single specimen, a female, in the collection, and after examining it, I should say that the species from the Solomon Islands is really distinct from *C. stephani*; it is a much larger bird, and the lead-grey colour of the forehead of the female is more extended, reaching the middle of the crown, and the brown-chocolate colour of the hind head, nape, and back is darker: "bill yellow; legs red; iris brown" (*Woodford*). Total length about 10·5 inches, wing 6·4, tail 3·6, bill 0·76, tarsus 1·5.

The *adult male* is described by Mr. Ramsay as having the forehead white as far as the eyes; rest of the head and ear-coverts dull plum-colour, the hind neck and interscapular region and shoulders vinaceous purple tinged with rosy violet; remainder of the plumage as in the female.

Hab. Guadalcanar, Solomon Islands.

a. ♀ ad. sk.	Aola, Guadalcanar, May.	C. M. Woodford [P.].

19. CALOPELIA.

	Type.
Calopelia, *Salvad. MS.*	C. puella.

Range. Confined to Western Africa.

Key to the Species.

General plumage cinnamon; head cobalt-blue; no dark bands on the rump; tail much rounded or graduated; 1st primary equal to the 6th; 2nd, 3rd, and 4th nearly equal and the longest.

a. Spots on the wings metallic green ..... *puella*, p. 523.
b. Spots on the wings golden coppery ..... *brehmeri*, p. 524.

1. Calopelia puella.

Columba (Peristera) puella, *Schleg. Bijdr. tot de Dierk.* 1848, p. 17, pl. —; *Hartl. Beitr. Orn. Westafr.* 1850, p. 37, sp. 385.
Peristera puella, *Rchnb. Syn. Av.* Columbariæ, *Novit.* t. 245. f. 2593 (1851); *Hartl. J. f. O.* 1854, p. 208, 1855, p. 361; *Cass. Pr. Ac. Philad.* 1856, p. 321 (Cape Lopez); *Hartl. Orn. W.-Afr.* pp. 198, 275; *Cass. Pr. Ac. Philad.* 1859, p. 143 (Camma, Ogobai, and Muni Rivers); *Sharpe, Ibis*, 1869, p. 387 (Fantee); *Schleg. Mus. P.-B.* Columbæ, p. 134 (1873); *Ussher, Ibis*, 1874, p. 71 (Gold Coast).
Peristera pulchella, *Schleg.* (*ubi?*) *fide Bp. Consp. Av.* ii. p. 68 (1854); *id. Compt. Rend.* xl. p. 20 (1855); *id. Coup d'œil Ordre Pig.* p. 33 (1855).
Chalcopelia puella, *Bp. Consp. Av.* ii. p. 68 (1854); *id. Compt. Rend.* xl. pp. 19, 219, n. 201 (1855); *id. Coup d'œil Ordre Pig.* pp. 33, 57, n. 201 (1855); *G. R. Gr. Hand-list*, ii. p. 244, n. 9410 (1870); *Shell. Ibis*, 1883, p. 321; *Sclat. List Vert. An.* 8th ed. p. 458 (1883); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 285 (1890).
Chalcopeleia puella, *Rchnb. Tauben*, i. p. 70, t. 245. f. 2593 (1862), ii. p. 176 (1862).
Turtur puellus, *Gieb. Thes. Orn.* iii. p. 727 (1877).
Haplopelia puella, *Tristr. Cat. Coll. B.* p. 40 (1889).

Adult male. General plumage cinnamon, somewhat darker on the upper parts; head and upper part of the neck cobalt-blue, paler on the forehead and throat; lores black: lower part of the neck shaded with vinous; several metallic golden-green spots on the inner greater wing-coverts and inner secondaries; quills pale brown, with the inner webs towards the base cinnamon, like the under wing-coverts; six central tail-feathers uniform cinnamon, the three outer pairs cinnamon at the tip, with a black subterminal black band, and with the base more or less grey; the outer tail-feathers have no cinnamon colour on the outer web, except at the tip: "iris brown; bill dusky slate-colour, inclining to yellow towards the tip; legs brown" (*Shelley*). Total length about 10·5 inches, wing 5·2, tail 4·6, bill 0·6, tarsus 0·95.

Female. Apparently similar to the male, but perhaps smaller.

The *immature bird* has some of the scapulars, wing-coverts, and secondaries barred with black.

Hab. W. Africa, from the Gold Coast to the Gaboon.

a. Ad. ♂.	Sierra Leone (*Dr. Clark*).	Shelley Coll.
b. Ad. ♂.	Gold Coast.	Gould Coll.
c. Ad. ♂.	Cape Coast Castle.	Tweeddale Coll.

d–g. Ad. sk.	Fantee (*Ussher*).	Shelley Coll.
h. Ad. sk.	Fantee (*Aubinn*).	Shelley Coll.
i. Ad. sk.	Cameroon Mountains.	Shelley Coll.

2. Calopelia brehmeri.

Chalcopelia brehmeri, *Hartl. Ibis*, 1865, p. 236; *id. J. f. O.* 1865, p. 97 (Gaboon); *G. R. Gr. Hand-list*, ii. p. 244, n. 9411 (1870); *Finsch, Ibis*, 1875, p. 467; *Bocage, Orn. Ang.* p. 391 (1881); *Shell. Ibis*, 1883, p. 322.

Peristera brehmeri, *Sharpe & Bouv. Bull. Soc. Zool. Fr.* 1876, p. 52 (Landano and Chinchonxo); *Rchnw. J. f. O.* 1877, p. 13 (Loango).

Turtur brehmi (!), *Gieb. Thes. Orn.* iii. p. 725 (1877).

Very similar to *C. puella*, from which it only differs in the metallic spot on the wings being of a golden coppery, with occasionally a slight green reflection: "bill brown-red at the base, blue-grey at the tip; feet pale red; iris brown" (*Falkenstein*). Total length 9·1 inches, wing 5·2, tail 4·5, bill 0·65, tarsus 1.

Young. Forehead reddish.

Hab. W. Africa, from Gaboon to the Loango Coast, north of the Congo.

According to Shelley not specifically different from *C. puella*.

a, b. Ad. sk.	No locality (Gaboon?).	M. DuChaillu [C.].

20. HENICOPHAPS.

	Type.
Henicophaps, *G. R. Gr. P. Z. S.* 1861, p. 432	H. albifrons.
Rynchænas (*lege* Rhynchœnas), *Rosenb. N. T. N. I.* xxix. p. 143 (1862)	H. albifrons.

Range. New Guinea and the western Papuan Islands—Waigiou, Ghemien, Salawatti, and Aru Islands.

1. Henicophaps albifrons.

Henicophaps albifrons, *G. R. Gr. P. Z. S.* 1861, pp. 432, 437, pl. xliv.; *Rchnb. Taub.* ii. p. 191, n. 104 *b* (1862); *Finsch, Neu-Guin.* p. 179 (1865); *Wall. Ibis*, 1865, p. 362; *id. J. f. O.* 1866, p. 283; *Schleg. N. T. D.* iii. pp. 193, 345 (1866); *id. in Rosenb. Reis naar Zuidoostereil.* p. 50 (note) (1867); *Wall. Malay. Archip.* pp. 367, 430 (1869); *G. R. Gr. Hand-list*, ii. p. 245, n. 9426 (1870); *Sundev. Meth. nat. Av. disp. Tent.* p. 100 (1872); *Schleg. Mus. P.-B.* Columbæ, p. 156 (1873); *Gieb. Thes. Orn.* ii. p. 322 (1875); *Becc. Ann. Mus. Civ. Gen.* vii. p. 715 (1875); *Salvad. ibid.* p. 791 (1875), ix. pp. 45, 201, n. 82 (1876), x. p. 161 (1877); *Rams. Pr. Linn. Soc. N. S. W.* iii. p. 104 (1878), iv. pp. 92, 101, n. 177 (1879); *Rosenb. Malay. Archip.* pp. 372, 395, 561 (1878); *Sharpe, Journ. Linn. Soc., Zool.* xiv. p. 633 (1879); *D'Alb. & Salvad. Ann. Mus. Civ. Gen.* xiv. p. 124 (1879); *D'Alb. Nuova Guin.* pp. 254, 281, 581, 582, 585, 588 (1880); *Salvad. Orn. Pap. e Mol.* iii. p. 183 (1882); *Sharpe, Journ. Linn. Soc., Zool.* xvi. p. 446 (1882); *Nehrk. J. f. O.* 1885, p. 34 (Waigiou); *Guillem.*

P. Z. S. 1885, p. 662; *Finsch & Meyer, Zeitschr. f. ges. Orn.* 1886, p. 28; *Tristr. Cat. Coll. B.* p. 40 (1889); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 286 (1890); *Salvad. Ann. Mus. Civ. Gen.* (2) x. p. 826 (1891); *id. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 65 (*Agg. Orn. Pap. e Mol.* p. 191 (1891).

Rynchsenas (*sic*) schlegeli, *Rosenb. N. T. N. I.* xxix. p. 143 (1862).

Rhynchsenas schlegelii, *Rosenb. Reis naar Zuidoostereil.* p. 50 (1867).

Adult male. Forehead white, more or less tinged with buff; rest of the head, neck, breast, and abdomen dark purple vinous, tinged with greyish on the latter; mantle and scapulars black with a green lustre; lower back, rump, and upper tail-coverts slate-black; smaller wing-coverts black, edged with dark chestnut; the median and the inner greater wing-coverts golden bronze, edged with dark chestnut; the tertials metallic green on the outer webs; bastard-wing, primary-coverts, outer greater wing-coverts, under wing-coverts, quills, and tail dark slate-black; vent and under tail-coverts chestnut: "bill black; feet red; iris black" (*D'Albertis*). Total length about 13·6 inches, wing 7·25, tail 5·25, bill 1·24, tarsus 1·12.

Female. Like the male.

Young. Wants the metallic colour on the wings.

Hab. New Guinea and the western Papuan Islands—Waigiou, Ghemien, Salawatti, and Aru Islands.

In some specimens the metallic colour on the wings has a blue tinge.

a–d. Ad. et juv. sk. et st.	New Guinea.	Wallace Coll. (Types of species.)
e. Imm. sk.	New Guinea (*Wallace*).	Gould Coll.
f. Ad. sk.	N.W. New Guinea (*L. Laglaize*).	Tweeddale Coll.
g. ♀ ad. sk.	Andai, N.W. New Guinea, Feb.	Salvin-Godman Coll.
h. ♀ juv. sk.	Nusuru, N.W. New Guinea, Jan.	Salvin-Godman Coll.
i. Ad. sk.	Vicinity of Port Moresby (*A. Goldie*).	Salvin-Godman Coll.
k. Ad. sk.	Port Moresby.	J. Broadbent, Esq. [C.].
l. Ad. sk.	Astrolabe Mts. (*A. Goldie*).	Tweeddale Coll.
m. ♀ ad. sk.	Mainland of S.E. New Guinea.	C. Hunstein, Esq. [C.].
n, o. Ad. sk.	S.E. New Guinea (*A. Goldie*).	Salvin-Godman Coll.
p. Ad. sk.		Gould Coll.

21. PHAPS.

	Type.
Phaps, *Selby, Natural. Libr., Pigeons*, p. 194 (1835) .	P. chalcoptera.
Peristera, *Sw.* (*nec Boie*) *Class. B.* ii. p. 349 (1837) . .	P. chalcoptera.
Cosmopelia, *Sundev. Tent.* p. 100 (1872)	P. elegans.

Range. Australia and Tasmania.

Key to the Species.

a. Throat white; breast vinous ..... *chalcoptera*, p. 526.
b. Throat chestnut; breast grey ..... *elegans*, p. 527.

1. Phaps chalcoptera.

Bronze-winged Pigeon, *Phill. Bot. Bay*, pl. p. 162 (1789); *Lath. Gen. Syn. Suppl.* ii. p. 266, no. 1 (1802).
Golden-winged Pigeon, *White, Journ.* pl. p. 145 (1790).
Columba chalcoptera, *Lath. Ind. Orn.* ii. p. 604, n. 39 (1790) (Norfolk Island); *Bonn. Tabl. Enc. Méth.* p. 244 (1790); *Shaw, Mus. Lever.* p. 227, pl. 55 (1792); *Temm. & Knip, Pig.* i. fam. sec. p. 17, pl. 8 (1808–11); *Temm. Pig. et Gall.* i. pp. 103, 448 (1813); *Vieill. N. D.* xxvi. p. 343 (1818); *Steph. Gen. Zool.* xi. p. 17 (1819); *Desm. Dict. Sc. Nat.* xl. p. 321 (1826); *Wagl. Syst. Av.* Columba, sp. 57 (1827); *Less. Tr. d'Orn.* p. 470 (1831); *id. Compl. de Buff., Ois.* viii. p. 79 (1837); *id. op. cit.* 2nd ed. p. 290 (1838); *Gullie. P. Z. S.* 1875, p. 489.
Phaps chalcoptera, *Selb. Natural. Libr., Pigeons*, p. 195, pl. 21 (1835); *G. R. Gr. List Gen. B.* 2nd ed. p. 75 (1841); *Hartl. Syst. Verz.* p. 99 (1844); *G. R. Gr. Gen. B.* ii. p. 477, n. 1 (1845); *Rchnb. Syst. Av.* ff. 1452–53 (1847); *Blyth, Cat. B. Mus. A. S. B.* p. 298, no. 1443 (1849); *Rchnb. Vög. Neuholl.* sp. 426 (1850); *id. Av. Syst. Nat.* p. xxv (1852); *Bp. Consp. Av.* ii. p. 90 (1854); *id. Compt. Rend.* xl. pp. 206, 221, n. 270 (1855); *id. Coup d'œil Ordre Pig.* pp. 44, 59, n. 270 (1855); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 60 (1856); *Zuchold, J. f. O.* 1858, p. 40; *Homey. J. f. O.* 1859, p. 361; *Rchnb. Tauben*, i. p. 35, t. 261. ff. 1452–53 (1862); *G. R. Gr. Ibis*, 1862, p. 232 (Norfolk Is., *Phillips*); *Gould, Handb. B. Austr.* ii. p. 122 (1865); *Rams. Ibis*, 1866, p. 333 (Port Denison); *Müller, P. Z. S.* 1869, p. 280; *Sclat. P. Z. S.* 1869, p. 628; *Hutt. Ibis*, 1870, p. 397 (Auckland, introduced); *G. R. Gr. Hand-list*, ii. p. 245, n. 9427 (1870); *Sundev. Tent.* p. 99 (1872); *Finsch, J. f. O.* 1872, p. 87; *Schleg. Mus. P.-B.* Columbæ, p. 154 (1873); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 22 (1873); *Garrod, P. Z. S.* 1873, pp. 468, 639, 1874, pp. 250, 256; *Rams. P. Z. S.* 1876, p. 116; *Forbes, P. Z. S.* 1877, p. 307; *Gieb. Thes. Orn.* iii. p. 89 (1877); *Rams. Pr. Linn. Soc. N. S. W.* i. p. 183 (1876), ii. p. 195, n. 524 (1878); *Masters, Pr. Linn. Soc. N. S. W.* ii. p. 275 (1878); *Schmidt, P. Z. S.* 1880, p. 314; *Salv. Cat. B. Strickl. Coll.* p. 551 (1882); *Sclat. List Vert. An.* 8th ed. p. 460 (1883); *Rams. Tab. List*, p. 18, n. 536 (1888); *North, Nests & Eggs B. Austr.* p. 273 (1889); *Tristr. Cat. Coll. B.* p. 40 (1889); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 286 (1890); *Hartert, Kat. Vogelsamml.* p. 189 (1891).
Peristera chalcoptera, *Sw. Class. B.* ii. p. 349 (1837); *G. R. Gr. List Gen. B.* p. 58 (1840); *Gould, B. Austr.* v. pl. 64 (pt. xiii., 1843).
Goura chalcoptera, *Schleg. Dierent.* p. 209 (1864).

Adult male. Front white, more or less tinged with fulvous, a band across the crown extending on the sides of the occiput dull purple; occiput, hind neck, and upper part brown-grey; the feathers of the back, rump, and upper tail-coverts, and also the scapulars, with lighter edges; lores black; a subocular line extending over the ear-coverts white; cheeks, ear-coverts, and sides of the neck grey; throat white; breast vinous, changing into grey on the abdomen; sides brown-grey; under tail-coverts grey, with light edges at the tips; wings brown-grey; the wing-coverts with a broad spot on the outer web of a rich coppery-red or golden bronze-green;

the inner secondaries have green-metallic spots, with steel-blue reflection on the outer webs; inner webs of the quills towards the base rufous cinnamon, like the axillaries and the under wing-coverts; two centre tail-feathers brown-grey, the remainder deep grey, crossed by a band of black near the tip, which is brown-grey: "irides dark reddish brown; bill blackish grey; legs and feet carmine-red" (*Gould*). Total length 13·5 inches, wing 7, tail 5·5, bill 0·66, tarsus 0·95.

Female and young. Duller than the male; forehead grey; no purple band on the crown or on the sides of the occiput; edges of the feathers of the upper parts broader and reddish grey; no vinous colour on the breast, which is greyish, with edges of the feathers brownish; metallic spots on the wing metallic golden green.

Hab. Australia and Tasmania.

a. Ad. sk.	Australia.	Baron Laugier's Coll.
b. Imm. sk.	Australia.	Sir D. Cooper [P.].
c. Ad. sk.	Australia.	Gould Coll.
d, *e.* Ad. sk.	Australia (*J. T. Cockerell*).	Salvin-Godman Coll.
f. Pull. sk.	Australia.	Zoological Society's Coll.
g. ♀ ad. sk.	Port Essington.	J. B. Jukes, Esq. [P.].
h. Imm. sk.	Cape Upstart.	J. B. Jukes, Esq. [P.].
i, *k.* Ad. sk.	Queensland.	Tweeddale Coll.
l. Ad. sk.	Sydney.	Tweeddale Coll.
m, *n.* Ad. sk.	Murray R., S. Australia.	Sir G. Grey [P.].
o. Ad. sk.	S. Australia.	Sir G. Grey [P.].
p. ♀ ad. sk.	Port Lincoln, Dec.	Hume Coll.
q. ♂ ad. sk.	King George's Sound, Feb.	Hume Coll.
r. ♂ ad. sk.	Perth, W. Australia, May.	Gould Coll.
s, *t*, *u.* ♂ ad. et imm. sk.	Tasmania.	C. G. H. Lloyd, Esq. [P.].
v, *w.* Ad. sk.	Tasmania, Sept.	J. B. Jukes, Esq. [P.].
x. Skeleton.		Purchased.

2. Phaps elegans.

Columba elegans, *Temm. & Knip, Pig.* i. fam. sec. p. 56, pl. 22 (1808–11); *Temm. Pig. et Gall.* i. pp. 240, 466 (1813); *Vieill. N. D.* xxvi. p. 350 (1818); *Steph. Gen. Zool.* xi. p. 43 (1819); *Vieill. Enc. Méth.* i. p. 379 (1823); *Desm. Dict. S. Nat.* xl. p. 330 (1826); *Wagl. Syst. Av.* Columba, sp. 58 (1827); *Less. Tr. d'Orn.* p. 470 (1831); *id. Compl. de Buff., Ois.* viii. p. 79 (1837); *id. op. cit.* 2nd ed. p. 297 (1838).

Columba lawsonii, *Sieber, Isis*, 1825, *Beyl.* no. 1, *Vög. aus Neuholl.* sp. n. 67 (descr. nullâ).

Phaps elegans, *Selby, Nat. Libr., Pigeons*, p. 194 (1835); *G. R. Gr. Gen. B.* ii. p. 477, n. 2 (1845); *Rchnb. Syn. Av.* ff. 1454–56 (1847); *id. Vög. Neuholl.* sp. 427 (1850); *Bp. Consp. Av.* ii. p. 90 (1854); *id. Compt. Rend.* xl. pp. 206, 221, n. 271 (1855); *id. Coup d'œil Ordre Pig.* pp. 44, 59, n. 271 (1855); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 61 (1856); *Rchnb. Tauben*, i. p. 37, t. 261. ff. 1454–56 (1862); *Gould, Handb. B. Austr.* ii. p. 125 (1863); *G. R. Gr. Hand-l.* ii. p. 245, n. 9428 (1870); *Sundev.*

Tent. p. 100 (1872); *Schleg. Mus. P.-B.* Columbæ, p. 154 (1873); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 23 (1873); *Gieb. Thes. Orn.* iii. p. 89 (1877); *Rams. Pr. Linn. Soc. N. S. W.* i. p. 183 (1876), ii. p. 195, n. 525 (1878); *Salv. Cat. B. Strickl. Coll.* p. 551 (1882); *Sclat. List Vert. An.* 8th ed. p. 461 (1883); *Rams. Tab. List*, p. 18, n. 537 (1888); *North, Nests & Eggs B. Austr.* p. 274 (1889); *Tristr. Cat. Coll. B.* p. 40 (1889); *Harlert, Kat. Vogelsamml.* p. 188 (1891).

Peristera elegans, *Gould, B. Austr.* v. pl. 65 (pt. xiii., 1843); *Müll. P. Z. S.* 1869, p. 280.

Goura elegans, *Schleg. De Dierent.* p. 209 (1864).

Cosmopelia elegans, *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 286 (1890).

Adult male. Forehead light ochreous yellow; crown and occiput grey; a broad chestnut band commences behind the eye and unites at the occiput; hind neck and upper back chestnut; lower back, scapulars, rump, and upper tail-coverts olive-grey; a black line on the lores; upper cheeks and upper ear-coverts whitish; lower cheeks and the underparts olive-grey, changing into greyish brown on the vent and tibial feathers; a triangular chestnut spot on the throat; upper wing-coverts olive-grey, the smaller and the outer ones tinged with chestnut; innermost median and greater wing-coverts metallic green on the outer webs, with the tips broadly grey; the median with coppery reflections, the innermost of the greater ones steel-blue; quills brown, with the base of the inner webs of a cinnamon colour like the under wing-coverts; the inner primaries have also the outer webs towards the base edged with the same colour; centre tail-feathers olive-grey, the next two pairs brown-chestnut towards the base, the others grey; all the lateral feathers have a subapical blackish band and grey-brown tips: irides very dark brown; feet bright pink-red. Total length about 13 inches, wing 6·5, tail 4·5, bill 0·62, tarsus 0·95.

Female. According to Gould, similar to the male, but I suspect that it differs in having the forehead whitish, with no ochreous-yellow tinge, as shown in some of the specimens enumerated below.

Immature birds resemble the supposed female, but have no chestnut colour on the nape, mantle, and upper wing-coverts.

Young birds are greyish brown, with the edges of the feathers rufous brown.

Hab. Southern Australia, from Swan River on the west to Moreton Bay on the east, Tasmania, and Islands in Bass's Straits.

a. Juv. st.	Australia.	Gould Coll.
b. Ad. sk.	Australia.	J. R. Reeves, Esq. [P.].
c, d. Ad. et pull. st.	W. Australia.	Gould Coll.
e. Ad. sk.	Swan R., S. Australia.	Gould Coll.
f. Ad. sk.	S. Australia.	Sir G. Grey [P.].
g, h. Ad. sk.	S. Australia (*J. T. Cockerell*).	Salvin-Godman Coll.
i, k. Ad. st.	Tasmania.	R. Gunn, Esq. [P.].
l. Skeleton.		Purchased.

22. HISTRIOPHAPS.

Type.
Histriophaps, *Salvad. MS.* ..... H. histrionica.

Range. Confined to Australia.

1. Histriophaps histrionica.

Columba (Peristera) histrionica, *Gould, P. Z. S.* 1840, p. 114 (Interior of Australia).
Peristera histrionica, *Gould, B. Austr.* v. pl. 66 (pt. ii., 1841).
Columba histrionica, *Prév. & Knip, Pig.* ii. p. 83, pls. 45 (♂), 51 (♀) (1838–43).
Phaps histrionica, *G. R. Gr. List Gallinæ Brit. Mus.* p. 17 (1844); *id. Gen. B.* ii. p. 477, n. 3 (1845); *Rchnb. Syn. Av.* ff. 1459–60 (1847); *id. Vög. Neuholl.* sp. 428 (1850); *Bp. Consp. Av.* ii. p. 90 (1854); *id. Compt. Rend.* xl. pp. 206, 221, n. 272 (1855); *id. Coup d'œil Ordre Pig.* pp. 44, 59, n. 272 (1855); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 61 (1856); ? *Elsey, P. Z. S.* 1857, p. 27 (N.W. Australia); *Zuchold, J. f. O.* 1858, p. 40; *Rchnb. Tauben*, i. p. 38, t. 262. ff. 1459–60 (1862), ii. p. 166 (1862); *Gould, Handb. B. Austr.* ii. p. 127 (1865); *Rams. Ibis*, 1866, p. 333 (Port Denison); *Sclat. P. Z. S.* 1869, p. 628; *G. R. Gr. Hand-list*, ii. p. 245, n. 9429 (1870); *Sundev. Tent.* p. 99 (1872); *Finsch, J. f. O.* 1872, p. 87; *Schleg. Mus. P.-B.* Columbæ, p. 154 (1873); *Gieb. Thes. Orn.* iii. p. 89 (1877) (syn. emend.); *Rams. Pr. Linn. Soc. N. S. W.* i. p. 183 (1876), ii. p. 195, n. 526 (1878); *Sclat. List Vert. An.* 8th ed. p. 460 (1883); *Rams. Tab. List*, p. 18, n. 538 (1888); *North, Pr. Linn. Soc. N. S. W.* (2) iii. p. 148 (1888); *id. Nests & Eggs B. Austr.* p. 274 (1889); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 286 (1890); *Benn. Rec. Austr. Mus.* i. pp. 107, 108 (1891).
Goura histrionica, *Schleg. De Dierent.* p. 209 (1864).

Adult male. Forehead, stripe from behind the eye forming a circle round the ear-coverts, and gorget snow-white; remainder of the head, throat, and ear-coverts jet-black; all the upper surface, wing-coverts, flanks, and two centre tail-feathers cinnamon-brown; breast and abdomen bluish grey; under tail-coverts grey at the base, light buff at the tip; marginal upper wing-coverts and under wing-coverts bluish grey; edge of the wing white; bastard-wing, primary-coverts, and primaries grey tipped with white; the latter with a pale brown tinge on the outer webs and cinnamon on the basal part of the inner webs; inner secondaries with a patch of metallic purple on the outer webs; the two last with a white subapical spot on the outer webs; lateral tail-feathers bluish grey at the base, passing into black towards the extremity, which is white: "nostrils and bill black; bare skin surrounding the eye purplish black; irides dark brown; frontal scales of the legs and feet lilac-red; hind parts flesh-red" (*Gould*). Total length about 11 inches, wing 8, tail 3·75, bill 0·75, tarsus 1.

Female. No white on the forehead, which is sandy rufous like the upper parts; ear-coverts and throat dull blackish; gorget and a

patch below the ear-coverts whitish buff; crop-region pale sandy brown; tips of the primaries and lateral tail-feathers whitish buff.

Hab. Interior of Australia, and also Ports Darwin and Derby, N.W. Australia.

a, b. ♂ ♀ ad. sk.	Australia.	Gould Coll.
c. ♀ ? ad. sk.	Australia.	Zool. Soc. Coll.
d, e, f. ♂ ad. sk. et st.	S. Australia.	Capt. Sturt [P.].
g, h. ♂ ♀ ad. sk.	Queensland.	Tweeddale Coll.
♂ ad. sk.	N.W. Australia, May.	J. R. Elsey, Esq. [P.].
k, l. ♂ ♀ ad. sk.	N.W. Australia.	Capt. Bowyer Bower [P.].
m. Skeleton.		Zool. Soc. Coll.

23. PETROPHASSA.

Type.

Petrophassa, *Gould, P. Z. S.* 1840, p. 173..... P. albipennis.

Range. Confined to Australia.

1. Petrophassa albipennis.

Petrophassa albipennis, *Gould, P. Z. S.* 1840, p. 173 (N.W. Australia); *id. B. Austr.* v. pl. 71 (pt. x., 1843); *G. R. Gr. Gen. B.* ii. p. 476 (1845); *Rchnb. Syn. Av.* ff. 1447–48 (1847); *id. Vög. Neuholl.* sp. 433 (1850); *id. Av. Syst. Nat.* p. xxv (1852); *Bp. Consp. Av.* ii. p. 87 (1854); *id. Compt. Rend.* xl. pp. 206, 221, n. 258 (1855); *id. Coup d'œil Ordre Pig.* pp. 45, 55, n. 258 (1855); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 58 (1856); *Elsey, P. Z. S.* 1857, p. 27 (Victoria River Depot, N.W. Australia); *Rchnb. Tauben*, i. p. 44, t. 260. ff. 1447–48 (1862), ii. p. 166 (1862); *Gould, Handb. B. Austr.* ii. p. 141 (1865); *G. R. Gr. Hand-list*, ii. p. 244, n. 9414 (1870); *Rams. Pr. Linn. Soc. N. S. W.* ii. p. 196, n. 533 (1878); *id. Tab. List*, p. 18, n. 545 (1888).

? Petrophassa n. sp., *Zuchold, J. f. O.* 1858, p. 40 (Moreton Bay).

Phaps albipennis, *Gieb. Thes. Orn.* iii. p. 88 (1877).

Adult male. Crown of the head and neck greyish brown, each feather margined with sandy brown; all the upper surface and chest rufous brown, the centre of each feather inclining to grey; lores black; throat black, with the feathers tipped with white; abdomen and under tail-coverts chocolate-brown; some of the inner upper wing-coverts and one of the inner secondaries have on the outer web a metallic coppery-violet spot, almost concealed, which has escaped Gould's notice; quills dark brown, the primaries have the basal half pure white; tail rufous brown on the upper surface, chocolate-brown underneath; bill and irides dark brown; feet reddish brown. Total length about 10·5 inches, wing 5·2, tail 4·5, bill 0·6, tarsus 0·8.

Female. Similar to the male.

Hab. N.W. Australia.

a, b. Ad. sk.	N.W. Australia.	Sir G. Grey [P.].
c, d. ♀ ad. et juv. sk.	N.W. Australia, Feb., May.	J. R. Elsey, Esq. [P.].

24. GEOPHAPS.

	Type.
Geophaps, *Gould, P. Z. S.* 1842, p. 19; *id. B. Austr.* v. pls. 67–69 (pt. vii., 1842)	G. scripta.

Range. Confined to Australia.

Key to the Species.

a. Larger, wing 6 inches; breast grey; upper wing-coverts tipped with pale brown ..... *scripta*, p. 531.
b. Smaller, wing 5·3 inches; breast pale brown, with only a small grey patch in the middle; upper wing-coverts uniform brown ..... *smithi*, p. 532.

1. Geophaps scripta.

Columba scripta, *Temm. Tr. Linn. Soc.* xiii. p. 127 (1821); *id. Pl. Col.* 187 (livr. 32, 1823); *Steph. Gen. Zool.* xiv. p. 284 (1826); *Desm. Dict. Sc. Nat.* xl. p. 333 (1826); *Less. Compl. de Buff., Ois.* viii. p. 78 (1837); *id. op. cit.* 2nd ed. p. 290 (1838); *Prév. & Knip, Pig.* ii. p. 63, pl. 33 (1838–43).
Columba inscripta, *Wagl. Syst. Av.* Columba, sp. 59 (1827).
Peristera scripta, *Sw. Class. B.* ii. p. 349 (1837).
Geophaps scripta, *Gould, B. Austr.* v. pl. 67 (pt. vii., 1842); *G. R. Gr. Gen. B.* ii. p. 478, n. 2 (1845); *Rchnb. Syn. Av.* ff. 1463–64 (1847); *id. Vög. Neuholl.* sp. 429 (1850); *id. Av. Syst. Nat.* p. xxv, t. xxiii. (1852); *Bp. Consp. Av.* ii. p. 87 (1854); *id. Compt. Rend.* xl. pp. 206, 221, n. 259 (1855); *id. Coup d'œil Ordre Pig.* pp. 45, 59, n. 259 (1855); *Zuchold, J. f. O.* 1858, p. 40 (from Moreton Bay to Comet River); *Rchnb. Tauben*, i. p. 41, t. 262. ff. 1463–64 (1862); *Gould, Handb. B. Austr.* ii. p. 130 (1865); *Rams. Ibis*, 1866, p. 333 (Port Denison); *G. R. Gr. Hand-list*, ii. p. 246, n. 9434 (1870); *Sundev. Tent.* p. 100 (1872); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 22 (1873); *Rams. P. Z. S.* 1876, p. 116 (N.E. Queensland); *id. Pr. Linn. Soc. N. S. W.* i. p. 183 (1876), ii. p. 195, n. 527 (1878); *Salv. Cat. B. Strickl. Coll.* p. 552 (1882); *Rams. Tab. List*, p. 18, n. 539 (1888); *Tristr. Cat. Coll. B.* p. 40 (1889); *Benn. Rec. Austr. Mus.* i. pp. 107, 108 (1891); *Sclat. P. Z. S.* 1892, pp. 76, 77.
Goura scripta, *Schleg. De Dierent.* p. 209 (1864).
Phaps scripta, *Schleg. Mus. P.-B.* Columbæ, p. 155 (1873) (type!); *Gieb. Thes. Orn.* iii. p. 91 (1877).

Adult male. Head, all the upper surface, and chest light brown, the tips of the upper wing-coverts much paler; throat and cheeks white; lores black, a band from over the eyes to the sides of the occiput and another under the eyes black, like a third band which starts from the middle of the cheeks and passing under the white ear-coverts joins another black band which surrounds the throat underneath; over the black lores a whitish band; forehead slightly tinged with grey; lower breast grey; sides of the breast white; abdomen, vent, and flanks of a fawn-colour; under tail-coverts dark grey, edged with fawn-colour; outer webs of inner greater

wing-coverts with a speculum of metallic greenish purple, barred with a darker tint; quills brown, edged with pale rufous on the outer webs; quills underneath grey; under wing-coverts mostly white, those along the edge of the wing brown; tail reddish brown, the lateral feathers with a broad apical black band: "bill black; irides black; naked skin surrounding the eyes bluish lead-colour; the corner immediately before and behind the eye nearly vinous red; feet and frontal scales dark purplish vinous red" (*Gould*). Total length about 12 inches, wing 6, tail 4·5, bill 0·57, tarsus 1·05.

Female. Similar to the male, only smaller.

Hab. North-western and Eastern Australia, from Rockingham Bay through the interior to Victoria.

a, *b*. Ad. sk. et pull. st.	Australia, April.	Sir T. Mitchell [P.].
c. Ad. sk.	Australia.	Gould Coll.
d, *e*. Ad. sk.	Australia (*J. T. Cockerell*).	Salvin-Godman Coll.
f, *g*. ♂ ad. et ad. sk.	N.W. Australia, Sept., Nov.	J. R. Elsey, Esq. [P.].
h. Ad. st.	Int. of Australia.	Gould Coll.
i. Ad. sk.	Queensland.	Tweeddale Coll.
k. Ad. sk.	Shoalwater Bay.	Linn. Soc Coll. (Type of species.)
l. Ad. sk.		Zool. Soc. Coll.

2. Geophaps smithi.

Columba smithi, *Jard. & Selb. Ill. Orn.* ii. pl. civ. (1836?).

Geophaps smithi, *Gould, B. Austr.* v. pl. 68 (pt. vii., 1842); *G. R. Gr. Gen. B.* ii. p. 478, n. 1 (1845); *Reichb. Syn. Av.* ff. 1465-1466 (1874); *id. Vög. Neuholl.* sp. 430 (1850); *Bp. Consp. Av.* ii. p. 87 (1854); *id. Compt. Rend.* xl. pp. 206, 221, n. 260 (1855); *id. Coup d'œil Ordre Pig.* pp. 45, 59, n. 200 (1855); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 62 (1856); *Reichb. Tauben*, i. p. 42, t. 262, ff. 1465-66 (1862), ii. p. 166 (1862); *Gould, Handb. B. Austr.* ii. p. 133 (1865); *G. R. Gr. Hand-list*, ii. p. 236, n. 9435 (1870); *Rams. Pr. Linn. Soc. N. S. W.* i. p. 183 (1876), ii. p. 195 n. 528 (1878); *Masters, Pr. Linn. Soc. N. S. W.* ii. p. 275 (1878) (Port Darwin); *Rams. Tab. List*, p. 18, n. 540 (1888); *Sharpe, Rev. Class. B.* p. 69 (note) (1891).

Phaps smithi, *Schleg. Mus. P.-B.* Columbæ, p. 155 (1873); *Gieb. Thes. Orn.* iii. p. 91 (1877).

Adult male. Head and all the upper parts brown, with an olive tinge; throat white, surrounded with a narrow grey band; a white line from the nostrils over the eyes, and a similar one from the base of the lower mandible under the large naked space of a bright reddish-orange colour surrounding the eyes; cheeks brownish grey; chest brown; on the centre of the breast a patch of clear grey feathers, edged at the tip with black; the feathers of the lower breast grey, broad, with a narrow, subapical, dark band, and with a whitish edge; sides of the breast white; middle of the abdomen and vent of a fawn-colour; flanks and under tail-coverts dark grey,

edged with fawn or pale reddish colour; outer webs of the inner greater wing-coverts and of the tertials rich purple, with green wavy reflections; quills brown, with narrow buff edges on the outer webs; quills underneath grey; under wing-coverts white, except those along the edge of the wing, which are brown; centre tail-feathers brown, remainder brown, with a broad subapical black band and brown tips: "irides of three colours, first a narrow ring of red, next the purple, then a broader ring of pure white, and lastly a narrow one of grey; bill [thick and strong] blackish grey; legs and feet bluish grey; back of the tarsi and inner sides of the feet yellowish grey" (*Gould*). Total length about 11 inches, wing 5·3, tail 3·75, bill 0·58, tarsus 1·12.

Female. Similar to the male, only smaller.

Hab. N.W. Australia, from Derby to the Gulf of Carpentaria.

a, *b*. Ad. sk. et st.	Port Essington.	Capt. W. Chambers [P.].
c. Ad. sk.	Port Essington.	Dr. Sibbald [P.].
d, *e*, *f*. ♂ ♀ ad. sk.	Depôt, Victoria R., N.W. Australia, Feb., April, Nov.	J. R. Elsey, Esq. [P.].
g, *h*. Ad. sk.	Australia (*J. T. Cockerell*).	Salvin-Godman Coll.

25. LOPHOPHAPS.

Lophophaps, *Rchnb. Av. Syst. Nat.* p. xxv (1852) .... Type. L. plumifera.

Range. Confined to Australia.

Key to the Species *.

a. Abdomen like the breast, cinnamon.
  a'. General cinnamon plumage paler..... *plumifera*, p. 533.
  b'. General cinnamon plumage deeper ..... *ferruginea*, p. 534.
b. Abdomen and a band before the grey pectoral band white ..... *leucogaster*, p. 535.

1. Lophophaps plumifera.

Geophaps plumifera, *Gould*, *P. Z. S.* 1842, p. 19 (N.W. coast of Australia); *id. B. Austr.* v. pl. 69. (pt. vii., 1842); *G. R. Gr. Gen. B.* ii. p. 478, n. 3 (1845); *Rchnb. Syn. Av.* ff. 1461–62 (1847); *id. Vög. Neuholl.* sp. 431 (1850); *Bp. Consp. Av.* ii. p. 87 (1854); *id. Compt. Rend.* xl. pp. 206, 221, n. 261 (1855); *id. Coup d'œil Ordre Pig.* pp. 44, 59, n. 261 (1855); *Elsey*, *P. Z. S.* 1857, p. 27 (Point Pearce); *Zuchold*, *J. f. O.* 1858, p. 40 (Lynd River); *Rchnb. Tauben*, i. p. 43, t. 262. ff. 1461–62 (1862), ii. p. 166 (1862).
Columba plumifera, *Prév. & Knip*, *Pig.* ii. p. 109, pl. 58 (1838–43).

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* Whether the three species mentioned are really different is still uncertain; Gould himself seemed rather doubtful on this point.

Lophophaps plumifera, *Rchnb. Av. Syst. Nat.* p. xxv (1852); *Gould, Handb. B. Austr.* ii. p. 135 (1865); *G. R. Gr. Hand-list*, ii. p. 246, n. 9436 (1870); *Rams. Pr. Linn. Soc. N. S. W.* i. p. 183 (1876), ii. p. 195, n. 529 (1878); *Rams. Tab. List*, p. 18, n. 542 (1888).
Goura plumifera, *Schleg. De Dierent.* p. 209 (1864).
Phaps plumifera, *Schleg. Mus. P.-B.* Columbæ, p. 155 (part.) (1873); *Gieb. Thes. Orn.* iii. p. 90 (1877).

Adult male. General plumage pale cinnamon; forehead, and a line on the sides of the crown, grey; bare lores and naked skin round the eye bounded above and below with a narrow line of black; centre of the crown and lengthened crest-plumes cinnamon, the latter paling into whitish buff towards the tips; throat and cheeks white; chin, a mesial gular stripe, and gorget black; upper part of the ear-coverts silvery white, lower part silvery grey; on the chest a crescentic band of grey, margined below with a narrower one of black; back of the neck and mantle with obsolete brown bars; upper wing-coverts and scapulars beautifully rayed with cinnamon at the tip of the feathers, with brown in the middle part, and with grey at the base; primaries cinnamon, with the tip and outer web of the first primary brown; secondaries brown, edged with rufous, and with the base of the inner webs cinnamon; an oblong bronzy-purple spot on the outer webs of three of the inner secondaries; under wing-coverts cinnamon; under tail-coverts brown-grey, with the outer webs whitish; central tail-feathers earthy brown, the lateral feathers with the base brown-cinnamon on the outer webs, inclining to grey on the inner ones, and with the apical portion black: "bill olive-black; irides yellow; naked skin round the eye either crimson or orange-red" (*Gould*). Total length 8 inches, wing 4·2, tail 2·6, bill 0·65, tarsus 0·8.

Hab. N.W. Australia.

a–d. ♂ ♀ ad. sk. N.W. Australia. Capt. Bowyer Bower [P.].

2. Lophophaps ferruginea.

Lophophaps ferruginea, *Gould, Handb. B. Austr.* ii. p. 137 (1865) (W. Australia) (descr. nulla); *id. B. Austr. Suppl.* pl. 69. (pt. iv., 1867); *G. R. Gr. Hand-list*, ii. p. 246, n. 9437 (1870); *Rams. Pr. Linn. Soc. N. S. W.* i. p. 183 (1876), ii. p. 195, n. 530 (1878); *Rams. Tab. List*, p. 18, n. 542 (1888).
Phaps plumifera, part., *Schleg. Mus. P.-B.* Columbæ, p. 155 (1873).
Phaps ferruginea, *Gieb. Thes. Orn.* iii. p. 89 (1877).

Similar to *L. plumifera*, but the general cinnamon colour of a deeper hue.

Hab. Western Australia.

a. Ad. sk. Gascoine River, W. Australia (*T. F. Gregory*). Gould Coll. (Type of species.)
b. Ad. st. Champion Bay, W. Australia. A. H. Du Boulay [C.].

3. Lophophaps leucogaster.

Lophophaps leucogaster, *Gould, B. Austr., Suppl.* pl. 69 (pt. iv., 1862) (S. Australia); *G. R. Gr. Hand-list*, ii. p. 246, n. 9438 (1870); *Rams. Pr. Linn. Soc. N. S. W.* i. p. 196 (1876), ii. p. 195, n. 531 (1878); *id. Tab. List*, p. 18, n. 543 (1888).
Phaps leucogaster, *Gieb. Thes. Orn.* iii. p. 90 (1877).

Similar to *L. plumifera* and *L. ferruginea*, but of a much paler and duller cinnamon colour, and with a distinct whitish band in front of the pectoral grey one; besides the central part of the lower breast is whitish, and the abdomen and vent buff.

Hab. S. Australia and N.W. Australia.

a. Ad. st. Victoria River, N.W. Australia. J. R. Elsey [C.].

26. OCYPHAPS.

	Type.
Ocyphaps, *Gould, P. Z. S.* 1842, p. 20	O. lophotes.

Range. Confined to Australia.

1. Ocyphaps lophotes.

Columba lophotes, *Temm. Pl. Col.* 142 (livr. 24, 1823); *Steph. Gen. Zool.* xiv. p. 289 (1826); *Desm. Dict. Sc. Nat.* xl. p. 352 (1826); *Wagl. Syst. Av.* Columba, sp. 103 (1827); *Less. Tr. d'Orn.* p. 474 (1831); *id. Compl. de Buff., Ois.* viii. p. 45 (1837); *id. op. cit.* 2nd ed. p. 281 (1838); *Temm. Tabl. Méth. Pl. Col.* p. 81 (1839); *Knip & Prév. Pig.* ii. p. 25, pl. 13 (1838–43).
Crested Pigeon of the Marshes, *Sturt's Exp. int. S. Austr.* i. pl. on p. 79 (1834).
Turtur? lophotes, *Selb. Nat. Libr., Pigeons*, p. 174, pl. 18 (1835); *Schleg. De Dierent.* p. 207 (1864).
Ocyphaps lophotes, *Gould, P. Z. S.* 1842, p. 20; *id. B. Austr.* v. pl. 70. (pt. xiii., 1843); *G. R. Gr. Gen. B.* ii. p. 476 (1845); *Rchnb. Syn. Av.* ff. 1449–51 (1847); *id. Vög. Neuholl.* sp. 432 (1850); *id. Av. Syst. Nat.* p. xxv (1852); *Bp. Consp. Av.* ii. p. 93 (1854); *id. Compt. Rend.* xl. pp. 221, n. 279 (1855); *id. Coup d'œil Ordre Pig.* p. 59, n. 279 (1855); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 58 (1856); *Bolle, J. f. O.* 1856, p. 167; *Homey. J. f. O.* 1859, p. 361; *Sclat. P. Z. S.* 1859, p. 206; *Crisp, P. Z. S.* 1860, p. 258; *Rchnb. Tauben*, i. p. 34, t. 261. ff. 1449–51 (1862), ii. p. 165 (1862); *Gould, Handb. B. Austr.* ii. p. 139 (1865); *Pelz. Novar. Reis., Vög.* p. 110 (1865); *Sclat. P. Z. S.* 1869, p. 628; *G. R. Gr. Hand-list*, ii. p. 244, n. 9413 (1870); *Sundev. Tent.* p. 100 (1872); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 23 (1873); *Garrod, P. Z. S.* 1873, pp. 468, 639, 1874, pp. 250, 256; *Rams. Pr. Linn. Soc. N. S. W.* ii. p. 195, n. 532 (1878); *Sclat. List Vert. An.* 8th ed. p. 459 (1883); *Rams. Tab. List*, p. 18, n. 544 (1888); *North, Nests and Eggs B. Austr.* p. 277 (1889); *Tristr. Cat. Coll. B.* p. 40 (1889); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 286 (1890); *Hartert, Kat. Vogelsamml.* p. 188 (1891); *Evans, Ibis*, 1891, p. 75.

Phaps lophotes, *Schleg. Mus. P.-B.* Columbæ, p. 156 (1873); *Gieb. Thes. Orn.* iii. p. 90 (1877)*.

Adult male. Head, face, throat, breast, and abdomen grey; lengthened occipital plumes black, with the base grey; nape brown-grey; back and rump olive-grey; upper tail-coverts greyish brown tipped with white; sides of neck and breast pinky salmon-colour; small and median upper wing-coverts buffy grey, except the outer ones, which are pure grey, each feather crossed near the tip with a narrow black band, giving this part of the plumage a barred appearance; greater wing-coverts shining bronzy green, margined with white; bastard-wing and primary-coverts grey, edged with white; primaries greyish black; secondaries broadly margined with white, the inner ones metallic purple on their outer webs; under wing-coverts pale grey; flanks washed with brown; under tail-coverts dark grey; two centre tail-feathers brown, the remainder blackish brown, glossed with purple, blue, and green on their outer webs, and tipped with white; tail underneath brown-black, tipped with white: "irides buffy orange; orbits naked, wrinkled, and of a pink-red; bill olive-black; legs and feet pink-red" (*Gould*). Total length about 12·5 inches, wing 6·8, tail 6, bill 0·55, tarsus 0·9.

Female. Similar to the male, only somewhat smaller.

Young. Similar to the adult bird.

Hab. Interior of N. and E. Australia, from Port Darwin and Port Essington to S. Australia.

a. Ad. sk.	Australia.	Australian Museum [P.].
***b, c, d.* Ad. st. et pull. sk.**	**Australia.**	**Sir T. Mitchell [P.].**
e, f. Pull. sk.	Bred in confinement.	Zoological Society's Coll.
g, h. Ad. sk.	Australia.	Gould Coll.
i, k, l. Ad. sk.	Australia (*J. T. Cockerell*).	Salvin-Godman Coll.
m, n, o. Ad. sk.	N.W. Australia.	Gregory's Expedition [C.].
p, q. ♂ ♀ ad. sk.	N.W. Australia.	Capt. Bowyer Bower [P.].
r, s, t. ♂ ♀ ad. sk.	Murray R., S. Australia.	Sir G. Grey [P.].
u. Skeleton.		Purchased.

* Giebel, copying a mistake made in the Index of the P. Z. S. of London, 1830–47, p. 155, mentions a *Phaps* (*Ocyphaps*) *micrurus* (l. c.), instead of *Pedionomus micrurus*, Gould, P. Z. S. 1842, p. 20!

Subfamily VI. GEOTRYGONINÆ.

Key to the Genera.

a. Primaries very broad and not tapering to a point ..... 27. HAPLOPELIA, p. 537.
b. Primaries rather narrow, and more or less tapering to a point.
a'. First primary attenuated at the tip.
a''. Tail more than half the length of the wing ..... 28. LEPTOPTILA, p. 543.
b''. Tail shorter than half the length of wing ..... 29. OSCULATIA, p. 563.
b'. First primary not attenuated at the tip, except in *Phlogœnas* (?) *hoedti*.
c''. Tarsus covered anteriorly with transverse scales or scutellæ.
a'''. Tail-feathers less than 20.
*a*⁴. Tail rather short, less than the distance from the bend of the wing to the tip of the secondaries.
*a*³. Tail of 12 feathers..... 30. GEOTRYGON, p. 564.
*b*³. Tail of 14 feathers..... 31. PHLOGŒNAS, p. 583.
*b*⁴. Tail rather long, more than the distance from the bend of the wing to the tip of the secondaries.
*c*³. Tarsus very little longer than the middle toe ..... 32. LEUCOSARCIA, p. 607.
*d*³. Tarsus double the length of the middle toe without the nail ..... 33. EUTRYGON, p. 609.
b'''. Tail-feathers 20 ..... 34. OTIDIPHAPS, p. 610.
d''. Tarsus covered anteriorly with small hexagonal scales or scutellæ; a black gular patch bordered below with white..... 35. STARNŒNAS, p. 612.

27. HAPLOPELIA.

Type.

Aplopelia, *Bp. Consp. Av.* ii. p. 66 (1854) ..... **H. larvata.**
Haplopeleia, *Rchnb. Tauben*, i. p. 76 (1862) (= Aplopelia, *Bp.*).
Sericopelia, *Rchnb. Tauben*, i. p. 77 (1862) ..... **H. larvata.**
Haplopelia, *Sundev. Meth. nat. Av. disp. Tent.* p. 100 (1872).

Range. **Ethiopian Region.**

Key to the Species.

a. Abdomen and under tail-coverts rufous cinnamon.	
a'. Occiput, hind neck, crop-region and upper breast metallic coppery red; forehead white.	
a''. Back and wings brown-olive.	
a'''. Larger; wing 6 inches: abdomen and under tail-coverts paler cinnamon.....	*larvata*, p. 538.
b'''. Smaller; wing 5·1 inches: abdomen and under tail-coverts darker cinnamon	*bronzina*, p. 540.
b''. Back and wings dark brown, with a purple gloss	*johnstoni*, p. 541.
b'. Occiput and nape with only a green coppery gloss	*inornata*, p. 541.
b. Abdomen and under tail-coverts whitish.....	*principalis*, p. 542. / *simplex*, p. 542.

1. Haplopelia larvata.

Tourterelle à masque blanc, *Levaill. Ois. d'Afr.* vi. p. 80, pl. 269 (1808).

Columba larvata, *Temm. & Knip, Pig.* i. fam. sec. p. 71, pl. 31 (1808–11); *Temm. Pig. et Gallin.* i. pp. 266, 471 (1813); *Vieill. N. D.* xxvi. p. 382 (1818); *Steph. Gen. Zool.* xi. p. 61 (1819); *Vieill. Enc. Méth.* i. p. 387 (1823); *Desm. Dict. Sc. Nat.* xl. p. 335 (1826); *Wagl. Syst. Av.* Columba, sp. 67 (1827); *Less. Tr. d'Orn.* p. 471 (1831); *id. Compl. de Buff., Ois.* viii. p. 45 (1837); *id. op. cit.* 2nd ed. p. 281 (1838); *Licht. in Forst. Descr. An.* p. 52 (note) (1844); *Sundev. K. Sv. Vet.-Ak. Handl.* 1857, p. 54.

Peristera larvata, *Selb. Nat. Libr., Pigeons*, p. 211, pl. 26 (1835) (syn. emend.); *G. R. Gr. Gen. B.* ii. p. 476, n. 6 (1845); *Reichb. Syn. Av.* f. 1434 (1847); *Blyth, Cat. B. Mus. A. S. B.* p. 237, n. 1439 (1849); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 36 (1856); *Layard, Birds S. Afr.* p. 263 (1867); *Gurn. Ibis*, 1868, p. 47 (Natal); *Shell. Ibis*, 1875, p. 84 (Durban); *Woodw. Zoolog.* 1875, p. 4617 (Natal); *Barratt, Ibis*, 1876, p. 208 (Macomac); *Ayres, t. c.* p. 433 (Lydenburg).

Columba sylvestris, *Forst.* (*nec Vieill.*) *Descr. An.* p. 52 (1844) (Cape).

Peristera sylvestris, *G. R. Gr. Gen. B.* Index, p. 112 (1849).

Leptoptila larvata, *Reichb. Av. Syst. Nat.* p. xxv (1852); *Schleg. Mus. P.-B.* Columbæ, p. 161 (1873).

Aplopelia larvata, *Bp. Consp. Av.* ii. p. 66 (1854); *id. Compt. Rend.* xl. pp. 18, 219, n. 194 (1855); *id. Coup d'œil Ordre Pig.* pp. 32, 57, n. 194 (1855); *G. R. Gr. Hand-list*, ii. p. 243, n. 9402 (1870); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 17 (1873); *Holub & Pelz. Beitr. Orn. Südafr.* p. 176 (1882); *Hartert, Kat. Vogelsamml.* p. 187 (part.) (1891).

Haplopeleia larvata, *Reichb. Tauben*, i. p. 76, t. 258. f. 1434 (1862).

Haplopeleia erythrogastra, *Reichb. Tauben*, i. p. 77 (1862). ii. p. 176, *Novit. Suppl.* t. iii. f. 28 (1862).

Turtur larvatus, *Gieb. Thes. Orn.* iii. p. 727 (1877).

Sericophila (*errore*) erythrogastra, *Gieb. l. c. in syn.* T. larvati.

Haplopelia larvata, *Salv. Cat. B. Strickl. Coll.* p. 549 (1882); *Shell.*

Ibis, 1883, p. 293; *Sharpe, Layard's B. S. Afr.* p. 564 (1884); *Tristr. Cat. Coll. B.* p. 40 (1889)*.

Adult male. Front half of the head and upper throat white; cheeks and ear-coverts white, faintly tinted with vinous ashy; hind part of the head and neck coppery purple, now and then with green reflections, stronger on the lower part of the hind neck; interscapular region slate-colour, the edges of the feathers coppery, with green reflections; remainder of the upper parts brown-olive; fore neck and breast dull vinous, changing into dusky brown on the sides of the body and into rufous cinnamon on the abdomen, vent, and under tail-coverts; the neck has purple-metallic shades; quills and under wing-coverts greyish brown; two central tail-feathers olive-brown, the next pair olive-brown with a grey shade near the tip; remainder blackish brown, with a broad apical dark grey band: "iris deep lilac; bill black; bare

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* Also the following synonyms and references probably belong to the present species:—

Columba erythrothorax, *Temm. & Knip, Pig.* i. fam. trois p. 15, pl. vii. (1808-11) (Surinam?); *Temm. Pig. et Gallin.* i. pp. 405, 494 (1813); *Vieill. N. D.* xxvi. p. 395 (1818); *id. Enc. Méth.* i. p. 383 (1823); *Desm. Dict. Sc. Nat.* xl. p. 306 (1826); *Wagl. Syst. Av.* Columba, sp. 68 (1827); *Less. Compl. de Buff., Ois.* viii. p. 7 (1837); *id. op. cit.* 2nd ed. p. 270 (1838); *Burm. Syst. Ueb. Th. Bras., Vog.* ii. p. 306 (1856).

Goura erythrothorax, *Steph. Gen. Zool.* xi. p. 127 (1819).

Peristera erythrothorax, *G. R. Gr. Gen. B.* Index, p. 77 (1849); *Rchnb. Syn. Av.* Columbariæ, *Novit.* t. 257 *b.* f. 3385 (*ex Temm. & Knip*) (1851).

Leptoptila erythrothorax, *Bp. Consp. Av.* ii. p. 74 (1854); *id. Compt. Rend.* xl. pp. 99, 220, n. 217 (1855); *id. Coup d'œil Ordre Pig.* pp. 36, 58, n. 217 (1855); *Rchnb. Tauben*, i. p. 26, t. 257 *b.* f. 3385 (1862); *Pelz. Orn. Bras.* pp. 279 (note), 451 (1870); *G. R. Gr. Hand-list*, ii. p. 243, n. 9384 (part.) (1870); *Berl. J. f. O.* 1874, p. 247 (part.).

Peristera erythrothorax, part., *Gieb. Thes. Orn.* iii. p. 66 (1877).

? Leptoptila rufaxilla, *Hartert* (*nec auct.*), *Kat. Vogelsamml.* p. 187, n. 2824 (1891).

? Peristera angustipennis, *Bp. Mus. Frankfort, ex Java! fide Hartert, l. c.* note [1].

Columba erythrothorax, Temm., said to be from Surinam, cannot be identified with any of the known species of the genus *Leptoptila*; it has the forehead, face, and throat white; the breast rufous vinous, changing into cinnamon on the abdomen and *under tail-coverts*; the lateral tail-feathers broadly tipped with white; on each side of the breast there is a dark (metallic?) patch.

It cannot be *Leptoptila reichenbachi*, on account of the broadly white-tipped lateral tail-feathers and of the chestnut under tail-coverts; in both characters, as well as in the want of grey on the crown and in the white face, it resembles *Haplopelia larvata* and *H. johnstoni*, and to one of these I think that it must be assigned; Gray (Gen. B. ii. p. 476) had already suspected the identity of *C. erythrothorax*, Temm., with *Haplopelia larvata*.

[1] Bonsparte (Compt. Rend. xl. p. 99; Coup d'œil Ordre Pig. p. 36) had already mentioned the bird in the Museum of Frankfort as from Java (!), but he identified it with *L. erythrothorax*, and not with *L. rufaxilla*.

skin round the eyes and the legs red" (*Shelley*). Total length about 11 inches, wing 6, tail 4·2, bill 0·55, tarsus 1·02.

Female. Similar to the male, but a little smaller and duller in colouring; greener and less coppery purple on the neck.

Young. Upper parts brown with rufous bars; breast rufous with black bars; forehead whitish rufous with brown bars.

Immature birds have many feathers of the upper parts, and also of the breast, with brown and rufous bars, remains of youth.

Hab. South Africa.

a, b, c. Ad. et juv. sk. et st.	S. Africa.	Purchased.
d. Juv. sk.	S. Africa.	Sir A. Smith [C.].
e. Ad. sk.	Cape (*Butler*).	Shelley Coll.
f, g. ♀ ad. et juv. sk.	Knysna, Jan. (*C. J. Andersson*).	Tweeddale Coll.
h. Ad. sk.	George (*Atmore*).	Shelley Coll.
i, k. Ad. sk.	Kingwilliamstown.	Capt. Trevelyan [P.].
l, m. Ad. sk.	Durban (*Gordge*).	Shelley Coll.
n, o. ♂ ad. sk.	Durban, March, April (*G. E. S.*).	Shelley Coll.
p. Ad. sk.	Pretoria (*Pratt*).	Sharpe Coll.
q, r. Ad. et juv. sk.	Macamac, Lydenburg.	F. A. Barratt, Esq. [P.].
s. ♀ ad. sk.	Macamac, Lydenburg, July (*Ayres*).	Salvin-Godman Coll.
t. ♂ juv. sk.	Macamac, Lydenburg, June (*Ayres*).	Gurney Coll.
u. Skeleton.	S. Africa.	Purchased.

2. Haplopelia bronzina.

Columba bronzina, *Rüpp. Neue Wirbelth.* p. 65, t. 23. f. 1 (1835) (Abyssinia); *Des Murs, in Lefebvre, Voy. Abyss.* p. 141 (1845), *Heugl. J. f. O.* 1862, pp. 294, 306.

Peristera bronzina, *G. R. Gr. Gen. B.* ii. p. 476, n. 11 (1845); *Reichb. Syn. Av.* f. 1440 (1847).

Turtur bronzinus, *Rüpp. Syst. Uebers.* p. 100 (1845); *Heugl. Syst. Ueb.* n. 318 (1856).

Aplopelia bronzina, *Bp. Consp. Av.* ii. p. 66 (1854); *id. Compt. Rend.* xl. pp. 18, 219, n. 195 (1855); *id. Comp. d'ail Ordre Pig.* pp. 32, 57, n. 195 (1855); *G. R. Gr. Hand-list*, ii. p. 244, n. 9403 (1870).

Haplopelcia bronzina, *Reichb. Tauben*, i. p. 77, t. 258. f. 1440 (1862).

Aplopeleia bronzina, *Heugl. Orn. N.O.-Afr.* i. 2, p. 844 (1871).

Haplopeleia chalcea, *Heugl. Orn. N.O.-Afr.* ii. App. p. clxxi (1875).

Turtur bronzinus, *Gieb. Thes. Orn.* iii. p. 725 (1877).

Haplopelia larvata, part., *Shell. Ibis*, 1883, p. 293.

Aplopelia larvata, *Salvad. Ann. Mus. Civ. Gen.* (2) i. p. 208 (1884), vi. p. 304 (1888) (Shoa); *Hartert, Kat. Vogelsammd.* p. 187 (part.) (1891).

Haplopelia bronzina, *Tristr. Cat. Coll. B.* p. 40 (1889).

Similar to *H. larvata*, but smaller; less purple and more greenish on the hind neck and mantle; also on the middle of the occiput there is a dull greenish lustre; the abdomen and under tail-coverts somewhat darker cinnamon: "iris brown; bill black; feet purple-red" (*Antinori*). Total length about 9 inches, wing 5·1, tail 3·7, bill 0·55, tarsus 1.

Female. Similar to the male, but a little smaller, and duller in colouring; greener and less coppery red on the hind neck.

Hab. Abyssinia and Shoa.

a. ♂ ad. sk. Shoa, June (*Antinori*). Shelley Coll.

3. Haplopelia johnstoni.

Haplopelia johnstoni, *Shell. Ibis*, 1893, p. 28, pl. iii. (Nyassaland).

Similar to *H. larvata*, but the back, wings, and tail darker brown, with no olive hue, and with a distinct purple tinge; the hind part of the head and the hind neck metallic coppery amethystine, with no greenish tinge; breast also with a strong metallic-coppery amethystine lustre; abdomen and under tail-coverts of a darker cinnamon than in *H. larvata*; under wing-coverts of a pure lead-grey colour. Total length about 11 inches, wing 6, tail 4·4, bill 0·62, tarsus 1·18.

Immature bird. Has the brown of the back and wings with an olive hue; the feathers of the occiput and hind neck greyish with metallic-green edges; also the edges of feathers of the crop-region have a metallic-green lustre; some of the secondaries, scapulars, and upper wing-coverts edged with rufous, remains of youth.

Young. Upper parts brown with rufous bars, except the mantle, which is uniform brown; underparts rufous, with brown bars on the breast and sides.

Hab. Melangi Plateau, 6000 feet, Nyassaland.

a, b, c. Ad., imm., et juv. sk. Melangi Plateau, Oct. H. H. Johnston, Esq. [C.]. (Types of species) *.

4. Haplopelia inornata.

Haplopelia inornata, *Rchnw. Allg. deutsch. Orn. Ges. zu Berlin, Bericht, Febr. Sitz.* 1892, p. 6; *id. J. f. O.* 1892, p. 179 (Cameroon).

"*H. larvatæ* maxime affinis, sed sincipite dilute cano, cervice et colli lateribus sordide rufescente brunneis, occipite magis cinerascente, his partibus paullum et inconspicue cupreo-lilacino-micantibus, in luce reflexa cupreo-viridi-resplendentibus; dorso, alis caudaque obscure rufescente brunneis; abdomine dilute cinna-

* This species has a striking resemblance to the still unidentified *Columba erythrothorax*, Temm. & Knip, Pig. i. fam. troia. p. 15, pl. vii.

momeo, crisso albido. L. t. 250, a. im. 135, c. 90, r. 12–14, t. 25 mm." (*Reichenow.*)

"This species differs from *H. larvata* in the grey forehead, darker upper surface, and pale under surface, but especially in wanting the beautiful coppery-red metallic gloss, which *H. larvata* shows in certain lights on the occiput, nape, region of the crop, and upper breast. By reflected light it shows on the occiput and nape, and less distinctly on the sides of the neck, a greener coppery gloss; on the crop-region a slight gloss is seen only on the edges of some of the feathers: 'iris violet; naked skin round the eyes blue-green; feet bluish grey and brown-red'" (*Dr. Preuss*).

Hab. Buea, 950–2200 m., Cameroon Range.

5. Haplopelia principalis.

Columba (Turtur) . . . ?, *Keulem. N. T. D.* iii. p. 396 (1866) (Prince's Isl.).

Peristera principalis, *Hartl. P. Z. S.* 1866, p. 330 (Prince's Isl.); *Gieb. Thes. Orn.* iii. p. 67 (1877).

Haplopelia principalis, *G. R. Gr. Hand-list*, ii. p. 244, n. 9405 (1870); *Shell. Ibis*, 1883, p. 295.

"Supra brunnea, nitore cupreo-rubente et virescente; sincipite cano; nucha vinaceo-purpurascente, remigibus fuscis, 2°–5ᵐ valde emarginatis; subalaribus ardesiacis; mento niveo; pectore vinaceo-rubente; abdomine sensim albicante; subcaudalibus canis; colli lateribus læte rubentibus; rectricibus, 2 mediis exceptis, nigris, apice late et dilute cinereis; rostro nigro; pedibus nitide rubris. Long. 0·26, rostri a fronte 0·018, alæ 0·156, caudæ 0·08, tarsi 0·03." (*Hartlaub.*)

Hab. Prince's Island.

Nearly allied to *H. simplex* (*Hartlaub*).

Unknown to me.

6. Haplopelia simplex.

Turtur simplex, *Hartl. Rev. et Mag. Zool.* 1849, p. 467 (St. Thomas Isl.); *id. Beitr. Orn. Westafr.* pp. 37, 55, Taf. 10 (1850); *Rchnb. Syn. Av.* Columbariæ, *Novit.* t. 266. ff. 2872–73 (1851) (*ex Hartlaub*); *Hartl. Abh. nat. Ver. Hamb.* ii. 2. pp. 37, 55, Taf. 10 (1852); *id. J. f. O.* 1854, p. 207; *Gieb. Thes Orn.* iii. p. 728 (1877); *Sousa, Jorn. Sc. Lisboa*, xii. p. 151 (1888).

Aplopelia simplex, *Bp. Consp. Av.* ii. p. 67 (1854); *id. Compt. Rend.* xl. pp. 18, 219, n. 196 (1835); *id. Coup d'œil Ordre Pig.* pp. 32, 57, n. 196 (1855); *Hartl. J. f. O.* 1861, p. 266; *G. R. Gr. Hand-list*, ii. p. 244, n. 9404 (1870).

Peristera simplex, "*Hartl.*," *Bp. Compt. Rend.* xl. p. 18 (1855); *id. Coup d'œil Ordre Pig.* p. 32 (1855); *Hartl. Orn. W.-Afr.* p. 196 (1857); *Sousa, Jorn. Sc. Lisb.* xii. p. 152 (1888).

Haplopeleia simplex, *Rchnb. Tauben*, i. p. 78, t. 266. ff. 2872–73 (1862).

Haplopelia simplex, *Shell. Ibis*, 1883, p. 295; *Bocage, Jorn. Sc. Lisb.* xii. p. 214 (1888).

Adult female. Upper parts brown-greyish olive; forehead light grey; cheeks greyish; chin and throat white; underparts grey, tinged with brown on the neck and sides, and changing into white on the middle of the abdomen and under tail-coverts, the latter minutely dotted with grey; on the hind part of the head and on the neck the edges of the feathers are dull amethystine, with green reflections in some lights; also the anterior part of the neck has the same amethystine lustre, with green reflections, but duller; primaries greyish; under wing-coverts greyish brown; central tail-feathers uniform brown-greyish olive, like the back; the lateral feathers have the base blackish and a broad grey terminal band; the inner feathers are more tinged with olive-brown on the outer web; tail underneath black, with a broad apical grey band: "bare skin round the eyes, iris, and feet vinous red; bill black" (*Bocage*). Total length about 10·5 inches, wing 5·8, tail 4, bill 0·58, tarsus 1·18.

The *adult male*, according to Prof. Bocage, has the back and wings of a darker colour, and the forehead white.

Hab. Island of St. Thomas.

a, *b*. ♀ ad. sk.	Island of St. Thomas, Feb., Sept.	Prof. Barboza du Bocage [P.].

28. LEPTOPTILA *.

	Type.
Leptotila, *Sw. Class. B.* ii. p. 349 (1837)	L. rufaxilla.
Leptoptila, *G. R. Gr. List Gen. B.* 2nd ed. p. 75 (1841) (nomen emend.).	
Homoptila, *Salvad. Atti R. Ac. Sc. Tor.* vi. p. 131 (1871)	L. ochroptera.
Engyptila, *Sundev. Meth. nat. Av. disp. Tent.* p. 156 (1872) (= Leptoptila, *Sw.*) †.	
Æchmoptila, *E. Coues, in G. B. Sennett's Report, Bull. U.S. Surv. Terr.* iv. p. 48 (1878) (= Leptoptila, *Sw.*).	

Range. From Texas, through Mexico and Central America to S. America as far as Peru and the Argentine Republic.

Key to the Species.

a. Long-tailed group: underparts never greyish.
  a'. No bluish-grey colour on the crown.
    a''. Inner web of the quills uniform brown, or with a very slight tinge of rufous on the inner edge ..... *brachyptera*, p. 545.

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* I cannot see any cause for confusion in using the genus *Leptoptila*, Sw., although there is a genus *Leptoptilos*, Less.

† Cory (Auk, 1887, p. 111) gives for *Engyptila* the incomplete reference: Sundev. Stockh. Akad. Handl. 1835, where I have failed to discover it.

b''. Inner web of the quills, for the greater part, cinnamon, like the under wing-coverts ..... *verreauxi*, p. 548.

b'. Crown with a more or less conspicuous bluish-grey colour; inner webs of the quills, for the greater part, constantly cinnamon.

c''. Upper parts olive, more or less brown.

a'''. Occiput and hind neck more or less with metallic colours.

a^4. The whole of the upper part of the head bluish grey, scarcely lighter on the forehead..... *plumbeiceps*, p. 550.

b^4. Upper part of the head not entirely bluish grey.

a^5. Sides of the head and also the upper throat, round the white of the chin and middle throat, conspicuously rufescent..... *rufaxilla*, p. 551.

b^5. Sides of the head not conspicuously rufescent.

a^6. Breast bright vinous red ..... *bahiæ*, p. 553. / *reichenbachi*, p. 553.

b^6. Breast pale vinous.

a^7. Hind neck not bright coppery red.

a^8. Hind neck greyish, glossed with coppery on the upper part, with bronze-green and bluish on the lower part.

a^9. Larger: wing 6·2 to 6·5 inches ..... ***chloroauchenia*, p. 554.**

b^9. Smaller: wing 5·5 inches. *ochroptera*, p. 555.

b^8. Hind neck grey, glossed with amethystine; occiput brown, with amethystine gloss ..... *megalura*, p. 556

b^7. Hind neck bright coppery red; abdomen white.

c^8. Shafts of the tail-feathers dark brown; lower throat and breast distinctly vinous; outer webs of primaries reddish brown, and distinctly edged with chocolate rufous; upper parts in some specimens (old ones?) tinged with glossy chocolate-brown ..... *gaumeri*, p. 557.

d^8. Shafts of the tail-feathers light reddish brown; lower throat and breast very pale vinous, almost white; no reddish-brown tinge on the outer webs of primaries; upper parts constantly (?) olive ..... *jamaicensis*, p. 557.

b'''. Occiput and hind neck brown, with no metallic colours; underparts, including the lower breast, conspicuously white, like the throat, which is abruptly defined from the dull vinous colour of the anterior part of the neck ..... *wellsi*, p. 559.

d''. Upper parts cinnamon-brown; lower parts very pale ..... *pallida*, p. 560.

b. Short-tailed group: breast grey or vinous grey.

c'. Occiput and nape rufous brown or dark brown.

e''. Breast pure grey ..... *cassini*, p. 560.

f''. Breast vinous grey.

c'''. Vinous-grey colour of the breast more greyish ..... *vinaceiventris*, p. 561.

d'''. Vinous-grey colour of the breast more rufescent ..... *cerviniventris*, p. 561.

d'. Occiput and nape bright rufous ..... *rufinucha*, p. 562.

1. Leptoptila brachyptera.

Peristera jamaicensis, part., *G. R. Gr. List Gallinæ Brit. Mus.* p. 15, spec. *g* (Mexico) (1844).

Z[enaida] amabilis, *McCall* (*nec Bp.*), *Pr. Ac. Nat. Sc. Philad.* 1851, p. 220 (between Matamoras and Camargo).

Peristera brachyptera, *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 54 (1856) (Mexico) (descr. nulla).

Leptoptila albifrons, *Sclat.* (*nec Bp.**) *P. Z. S.* 1857, p. 214 (Orizaba), 1859, pp. 368 (Jalapa), 391 (Playa Vicente); *Sclat. & Salv. Ibis*, 1859, p. 22 (Dueñas, Guatemala); *Rchnb. Tauben*, ii. p. 164 (1862); *Sclat. P. Z. S.* 1864, p. 178 (Mexico); *Sclat. & Salv. P. Z. S.* 1864, p. 370 (part.) (Guatemala); *iid. P. Z. S.* 1868, p. 60 (Mexico and Guatemala), 1870, p. 838 (Honduras); *G. R. Gr. Hand-list*, ii. p. 242, n. 9380 (1870); *Lawr. Ann. Lyc. N. Y.* x. p. 16 (1871); *id. Pr. Bost. Soc.* xiv. p. 274 (1871) (Tres Marias Is.); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 19 (1873); *Sclat. & Salv. Nomencl. Av. Neotrop.* p. 133, n. 2 (1873); *Edd. Ibis*, 1874, p. 456 (Guatemala); *Lawr. Mem. Bost. Soc.* ii. p. 305 (1874) (Mazatlan, Tres Marias); *Lawr. Bull. U.S. Nat. Mus.* no. 4, p. 44 (1876) (Tehuantepec); *Coues, Bull. Nutt. Orn. Club*, ii. p. 82 (1877) (Hidalgo, Texas); *Sanchez, An. Mus. Nac. Mex.* i. p. 105 (1878) (Marias Is., Mazatlan, Yucatan); *Brewer, Ibis*, 1878, p. 204 (S. Un. States); *Sanchez, An. Mus. Nac. Mex.* i. p. 105, n. 498 (1878); *Sumichr. Naturaleza*, v. p. 232, n. 34 (1881); *Bouc. P. Z. S.* 1883, p. 459 (Yucatan); *Tristr. Cat. Coll. B.* p. 40 (1889); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 284 (1890).

Peristera albifrons, *Gieb. Thes. Orn.* iii. p. 65 (part.) (1877).

Æchmoptila albifrons, *Coues, Bull. U.S. Geol. Surv. Terr.* iv. p. 48 (1878); *Ridgw. Pr. U.S. Nat. Mus.* i. p. 158 (1878).

Engyptila albifrons, *Coues, Bull. Nutt. Orn. Club*, v. p. 100 (1880); *Ridgw. Cat.* n. 463 (1880); *Coues, Check-list*, 2nd ed. p. 91, n. 542

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* I have examined in the Museum of Paris the type of *L. albifrons*, Bp., which is undoubtedly a specimen of *L. jamaicensis*, the only one of this species existing in the Museum; also the description applies to it only.

(1882); *id. Key N. Am. Birds*, 2nd ed. p. 567, n. 542 (1884); *Salv. Ibis*, 1885, p. 193; *A. O. U. Check-list N. Am. Birds*, p. 180, n. 318 (1886); *Ferrari-Perez, Pr. U.S. Nat. Mus.* ix. p. 175 (Puebla) (1886); *Ridgw. Man. N. Am. Birds*, p. 214, pl. lxii. f. 3 (1887); *Bendire, Life-Hist. N. Am. Birds*, p. 144 (1892).

Leptoptila fulviventris, *Lawr. Ann. N. York Ac.* ii. p. 287 (1882) (Yucatan) (type examined); *Boucard, P. Z. S.* 1883, p. 435; *Rchnw. & Schal. J. f. O.* 1883, p. 407.

? Engyptila verreauxi, *Nutt.* (*nec Bp.*), *Nutting, Pr. U.S. Nat. Mus.* vi. pp. 378, 389, 396 (Nicaragua) (1883).

Engyptila fulviventris, *Lawr. Ann. N. York Ac.* iii. p. 271 (1885).

Engyptila vinaceifulva, *Lawr. Ann. N. York Ac.* iii. p. 271 (1885) (Yucatan) (isabelline var. of *L. fulviventris*, type examined).

Adult male. Upper parts brown-olive; forehead whitish, with a slight greyish-vinous tinge, changing into coppery red with golden-bronze or greenish reflections on the occiput and hind neck; on the upper mantle sometimes a slight metallic-bluish or purple tinge; throat white; cheeks, sides of the neck, crop-region, and upper breast pale vinous, changing into white on the lower breast, abdomen, and under tail-coverts; the latter with a slight brownish and greyish-brown tinge on the outer webs; sides light brown; quills greyish brown, with partial narrow light edges on the outer webs; under surface of the quills sometimes with a slight rufous tinge on the inner edge; under wing-coverts and axillaries cinnamon; four central tail-feathers uniform olive-brown like the back; the lateral ones greyish brown, with an ill-defined broad brown-black band, and tipped with whitish; the outer feathers have the outer webs with a narrow whitish edge; "bill black; orbital region and feet pinkish red; iris yellow" (*Salvin*). Total length about 13 inches, wing 5·8, tail 4·5, bill 0·63, tarsus 1·15.

Female. Similar to the male.

Young birds are duller, and have the feathers of the upper parts and of the breast with rufescent edges.

Hab. Valley of the Lower Rio Grande in Texas, and southwards to Mexico, with Tres Marias Islands, Guatemala, San Salvador, and Nicaragua.

Tres Marias birds are rather brighter, more coppery violet, on the hind neck.

Some Yucatan specimens (*L. fulviventris*, Lawr.) are more fulvous on the flanks, and, perhaps, less bright on the hind neck; generally they have the forehead more vinous, but some specimens from other localities match them in this respect.

a. Ad. sk.	Mexico.	Purchased.
b. Juv. sk.	Mexico.	Purchased.
	(Types of *Peristera brachyptera*, Gray.)	
c–k. ♂ ♀ ad. sk.	Brownsville, Texas, March, April (*F. B. Armstrong*).	Salvin-Godman Coll.
l, m. n. ♂ ♀ ad. sk.	Hidalgo, Texas, March, April (*F. B. Armstrong*).	Salvin-Godman Coll.
o. ♂ ad. sk.	an Juan, Mexico (*Rébouch*).	W.W. Saunders, Esq. [P.].

p, *q*. ♂ ♀ ad. sk.	Rio Salado, Nuevo Leon, Mexico, March (*F. B. Armstrong*).	Salvin-Godman Coll.
r. ♂ ad. sk.	Estancia, Monterey, N. Leon, Mexico, April (*F. B. Armstrong*).	Salvin-Godman Coll.
s. ♂ ad. sk.	Hacienda de Los Escobas, N. Leon, Mexico, April (*F. B. Armstrong*).	Salvin-Godman Coll.
t. ♂ ad. sk.	Pesqueria Grande, N. Leon, Mexico, May (*F. B. Armstrong*).	Salvin-Godman Coll.
u. ♂ ad. sk.	Rio de la Gilla, N. Leon, Mexico, April (*F. B. Armstrong*).	Salvin-Godman Coll.
v. ♂ ad. sk.	Monte Morelas, N. Leon, Mexico, May (*F. B. Armstrong*).	Salvin-Godman Coll.
w. ♂ ad. sk.	Tamaulipas, Mexico, May (*W. B. Richardson*).	Salvin-Godman Coll.
x. ♂ ad. sk.	Sota la Marina, Tamaulipas, Mexico, April (*W. B. Richardson*).	Salvin-Godman Coll.
y, *z*. ♀ ad. sk.	Aldama, Tamaulipas, Mexico, March (*W. B. Richardson*).	Salvin-Godman Coll.
a', *b'*, *c'*. ♂ ♀ ad. sk.	Tampico, Mexico, Feb. (*W. B. Richardson*).	Salvin-Godman Coll.
d', *e'*, *f'*. Ad. sk.	Cuesta de Misantla, Vera Cruz, Mexico, June, Dec. (*M. Trujillo*).	Salvin-Godman Coll.
g'. ♂ ad. sk.	Misantla, Mexico, March (*F. D. G.*).	Salvin-Godman Coll.
h', *i'*. ♀ ad. et ♂ juv. sk.	Coatepec, Vera Cruz, Mexico (*F. Ferrari-Perez*).	Salvin-Godman Coll.
k'. ♂ ad. sk.	Atoyac, Vera Cruz, Mexico (*D. W. Smith*).	Salvin-Godman Coll.
l'. ♂ ad. sk.	Jalapa, Mexico, May (*F. D. G.*).	Salvin-Godman Coll.
m'. Ad. sk.	Vega del Casadero, Vera Cruz, Mexico, Dec. (*M. Trujillo*).	Salvin-Godman Coll.
n', *o'*. ♂ ♀ ad. sk.	Playa Vicente, Vera Cruz, Mexico, Dec. (*M. Trujillo*).	Salvin-Godman Coll.
p'. ♂ ad. sk.	Sochiapa, Vera Cruz, Mexico, Jan. (*M. Trujillo*).	Salvin-Godman Coll.
q', *r'*, *s'*. ♂ ad. et ad. sk.	Teapa, Mexico, Jan., Feb. (*D. W. Smith*).	Salvin-Godman Coll.
t'. Ad. sk.	Sonora, Mexico (*W. Lloyd*).	Salvin-Godman Coll.
u', *v'*. ♂ ♀ ad. sk.	Tres Marias Is., W. Mexico, Feb., Mar. (*A. Forrer*).	Salvin-Godman Coll.
w'. ♀ ad. sk.	San Blas, Ter. of Tepic, April (*W. B. Richardson*).	Salvin-Godman Coll.
x'. ♂ ad. sk.	Santiago, Ter. of Tepic, May (*W. B. Richardson*).	Salvin-Godman Coll.
y'. ♂ ad. sk.	Tepic, Mexico, May (*W. B. Richardson*).	Salvin-Godman Coll.

z'. ♂ ad. sk.	Lake Chapata, Jalisco, Mexico, Aug. (*W. B. Richardson*).	Salvin-Godman Coll.
a''. ♂ ad. sk.	Beltran, Jalisco, Mexico, April (*W. Lloyd*).	Salvin-Godman Coll.
b''. Ad. sk.	Santiago, Colima, Mexico, June (*W. Lloyd*).	Salvin-Godman Coll.
c''. ♀ ad. sk.	Tonalá, Chiapas, Mexico, Nov. (*Sumichrast*).	Salvin-Godman Coll.
d''. Ad. sk.	Acapulco, State of Guerrero, Mexico, Sept. (*D. W. Smith*).	Salvin-Godman Coll.
e'', f''. ♂ ad. et ad. sk.	Tehuantepec, Mexico, Feb. (*W. B. Richardson*).	Salvin-Godman Coll.
g''. ♂ ad. sk.	Merida, N. Yucatan, Dec. (*G. F. Gaumer*).	Salvin-Godman Coll.
h''. ♀ ad. sk.	Tizimin, N. Yucatan, June (*G. F. Gaumer*).	Salvin-Godman Coll.
i''. ♂ ad. sk.	Izamal, N. Yucatan, Jan. (*G. F. Gaumer*).	Salvin-Godman Coll.
k''–n''. Ad. sk.	Buctzotz, Yucatan, April (*G. F. Gaumer*).	Salvin-Godman Coll.
o''. ♂ ad. sk.	Dueñas, Guatemala, Feb. (*O. S.*).	Salvin-Godman Coll.
p''. ♂ ad. sk.	San Gerónimo, Vera Paz, Guatemala, April (*R. Owen*).	Salvin-Godman Coll.
q''. Ad. sk.	Retalulen, Guatemala (*O. S.*).	Salvin-Godman Coll.
r''. ♂ ad. sk.	Baranco-Hondo, 3800 feet, Guatemala, Oct. (*O. S.*).	Salvin-Godman Coll.
s''. ♂ ad. sk.	Toliman, 5000 feet, Guatemala, Dec. (*W. B. Richardson*).	Salvin-Godman Coll.
t''. ♂ ad. sk.	Panajachel, Guatemala, June (*W. B. Richardson*).	Salvin-Godman Coll.
u'', v'', w''. ♂ ad. sk.	La Libertad, Salvador. Feb. (*W. B. Richardson*).	Salvin-Godman Coll.
x'', y''. ♂ ♀ ad. sk.	Chinandega, Nicaragua, May (*W. B. Richardson*).	Salvin-Godman Coll.
z''. ♂ ad. sk.	El Volcan, Chinandega, Nicaragua, April (*W. B. Richardson*).	Salvin-Godman Coll.

2. Leptoptila verreauxi.

Peristera jamaicensis, *Jard.* (*nec Linn.*) *Ann. & Mag. N. H.* xx. p. 374 (1847) (Tobago).

Leptoptila verreauxi, *Bp. Consp. Av.* ii. p. 73 (1854) (New Granada; type examined); *id. Compt. Rend.* xl. pp. 99, 220, n. 215 (1855); *id. Coup d'œil Ordre Pig.* pp. 36, 58, n. 215 (1855); *id. Compt. Rend.* xliii. p. 945 (1856); *Sclat. P. Z. S.* 1855, p. 163, 1859, p. 147 (Pallatanga), 1860, p. 289 (Babahoyo, Ecuador); *Reichb. Tauben*, i. p. 25, ii. p. 164 (1862); *Lawr. Ann. Lyc. N. Y.* vii. p. 333 (1862) (Panama); *Sclat. & Salv. P. Z. S.* 1864, p. 320 (part., Panama); *Salv. P. Z. S.* 1867, p. 159 (Santa Fé, Veragua); *Sclat. & Salv. P. Z. S.* 1868, p. 60; *Frantz. J. f. O.* 1869, p. 371 (Costa Rica); *Salv. P. Z. S.* 1870, p. 217 (Calobre, Bugaba); *Sclat. & Salv. P. Z. S.* 1870, p. 782 (Merida); *G. R. Gr. Hand-list*, ii. p. 243, n. 9383 (1870); *Wyatt, Ibis*, 1871, p. 383 (Ocaña); *Sclat.*

& Salv. Nomencl. Av. Neotrop. p. 133, n. 3 (1873); *Salv. Ibis*, 1874, p. 312; *Edd. Ibis*, 1874, p. 456; *Bouc. P. Z. S.* 1878, p. 43 (Costa Rica); *Sclat. & Salv. P. Z. S.* 1879, p. 544 (Medellin); *Salv. & Godm. Ibis*, 1880, p. 178 (Santa Marta); ? *Berl. & Tacz. P. Z. S.* 1884, p. 311 (W. Peru, N. Peru); *Berl. J. f. O.* 1884, p. 319; *Tacz. Orn. Pér.* iii. p. 256, Tables, p. 102 (1886); *Tristr. Cat. Coll. B.* p. 40 (1889) (Tobago); *Hein. & Rchnb. Nomencl. Mus. Hein. Orn.* p. 284 (Pallatanga) (1890).

Peristera brevipennis, *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 54 (part.) (1856) (S. America, Trinidad); *Bp. Compt. Rend.* xliii. p. 945 (1856) (=L. verreauxi ?).

Peristera rufaxilla, part., *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 54, specim. *b* (1856).

Leptoptila albifrons, *Sclat.* (*nec Bp.* ?) *P. Z. S.* 1860, p. 289 (Babahoyo); *Berl. P. Z. S.* 1885, p. 117 (Babahoyo=L. verreauxi).

? Leptoptila —— ?, *Sclat. & Salv. P. Z. S.* 1864, p. 370 (Panama).

Leptoptila riottei, *Lawr. Ann. Lyc. N. Y.* ix. p. 138 (1869) (Navarro, Costa Rica; type examined); *Frantz. J. f. O.* 1869, p. 371; *G. R. Gr. Hand-list*, ii. p. 243, n. 9338 (1870).

? Leptoptila jamaicensis (part.), *Schleg. Mus. P.-B.* Columbæ, p. 158 (1873) (Bogota, Caracas); *Edd. Ibis*, 1874, p. 456.

Leptoptila riottii, *Salv. Ibis*, 1874, p. 312 (=L. verreauxi).

Leptoptila rufaxilla, *Tacz.* (*nec auct.*) *P. Z. S.* 1874, p. 556 (Monterico, E. Peru), 1880, p. 212 (Peru).

Leptoptila ochroptera, *Salv. & Sclat.* (*nec Natt.*) *P. Z. S.* 1876, p. 17 (Huiro, Peru).

Peristera jamaicensis, part., *Gieb. Thes. Orn.* iii. p. 67 (1877).

Peristera riottei, *Gieb. ibid.* (1877).

Engyptila verreauxi, *Zeled. An. Mus. Nac. C. R.* 1887, p. 127 (Costa Rica); *Nutt. Pr. U.S. Nat. Mus.* v. p. 408 (Costa Rica) (1882); *Ridgw. ibid.* pp. 498, 502 (Costa Rica) (1882); *Cherry, Auk*, 1892, p. 329 (Costa Rica).

Similar to *L. brachyptera*, but with the inner webs of the quills rufous cinnamon; the forehead generally vinous; no greyish tinge on the crown.

Adult male. Upper parts brown-olive; forehead generally vinous; occiput and hind neck coppery red, with bronze or yellowish reflections, more conspicuous on the mantle; chin white; cheeks, sides of the neck, lower throat, crop-region, and breast pale vinous, changing into white on the abdomen and under tail-coverts; the latter with a slight pale brown tinge on the outer webs; flanks pale brown; quills greyish brown, with partial narrow rufous edges on the outer webs: under wing-coverts, axillaries, and inner webs of the quills, except at the tip, cinnamon; two central tail-feathers uniform olive-brown, like the back; the lateral ones greyish towards the base and blackish towards the broad white tips; the outer feather has the outer web with a narrow white edge: bill black: "irides orange; naked space round the eyes, legs, and feet red" (*Fraser*). Total length about 10·75 inches, wing 6·8, tail 4·5, bill 0·65, tarsus 1·2.

Specimens from Santa Rita, Ecuador, are paler and more whitish on the forehead, cheeks, throat, and breast.

Hab. Costa Rica, Veragua, Panama, Columbia, Venezuela, Bonaire (*Hartert*), Guiana, Ecuador, and Peru.

a, b. ♀ ad. et ad. sk.	San José, Costa Rica, Jan. Nov. (*J. Carmiol*).	Salvin-Godman Coll.
c. ♂ ad. sk.	Santa Fé, Veragua (*Arcé*).	Salvin-Godman Coll.
d. ♂ ad. sk.	Cordillera de Tolé, Veragua (*Arcé*).	Salvin-Godman Coll.
e. ♂ ad. sk.	Bugaba, Chiriqui (*Arcé*).	Salvin-Godman Coll.
f, g, h. ♂ ♀ ad. sk.	Lion Hill, Isthmus of Panama (*McClelland*).	Salvin-Godman Coll.
i. ♀ ad. sk.	Medellin, U.S. of Colombia (*T. K. Salmon*).	Salvin-Godman Coll.
k. ♂ ad. sk.	Minca, 2000 ft., U.S. of Colombia, Feb. (*F. A. A. Simons*).	Salvin-Godman Coll.
l. ♂ ad. sk.	Puerto Cabello, Venezuela (*A. Goering*).	Salvin-Godman Coll.
m, n. Ad. sk.	Trinidad. (Two of the types of *Peristera brevipennis*.)	Zoological Society's Coll.
o. Ad. st.	British Guiana.	Sir R. Schomburgk [P.].
p–s. ♂ ♀ ad. sk.	Quonga, British Guiana, Sept. to Nov. (*H. Whitely*).	Salvin-Godman Coll.
t. Ad. sk.	Pallatanga, Ecuador (*Fraser*).	Eyton Coll.
u. Ad. sk.	Ecuador (*Fraser*).	Salvin-Godman Coll.
v, w. Ad. sk.	Santa Rita, Ecuador (*Buckley*).	Salvin-Godman Coll.
x. Ad. sk.	Huiro, Peru, Aug. (*H. Whitely*).	Salvin-Godman Coll.
y. Ad. sk.	S. America. (One of the types of *Peristera brevipennis*, Gray.)	Purchased of Verreaux.
z. Ad. sk.	S. America.	Purchased.

3. Leptoptila plumbeiceps.

Leptoptila rufaxilla, *Bp.* (*nec Rich. & Bern.*) *P. Z. S.* 1837, p. 113 (Mexico); *Sclat. P. Z. S.* 1856, p. 309 (Cordova); *Salv. & Sclat. Ibis*, 1860, p. 402 (Guatemala); *Gieb. Thes. Orn.* iii. p. 67 (part.) (1877).

Leptoptila plumbeiceps, *Sclat. & Salv. P. Z. S.* 1868, pp. 59, 60 (Vera Paz in Guatemala and Mexico); *G. R. Gr. Hand-list*, ii. p. 243, n. 9386 (1870); *Lawr. Ann. Lyc. N. Y.* x. p. 16 (1871); *Schleg. Mus. P.-B.* Columbæ, p. 160 (1873); *Sclat. & Salv. Nomencl. Av. Neotrop.* p. 133, n. 8 (1873); *Tristr. Cat. Coll. B.* p. 40 (1889).

Leptoptila bonapartii, *Lawr. Ann. Lyc. N. Y.* x. p. 15 (1871) (Mexico) (type examined); *Salv. Ibis*, 1874, p. 312 (=L. plumbeiceps).

Peristera plumbeiceps, *Gieb. Thes. Orn.* ii. p. 468 (1875).

Peristera bonapartei, *Gieb. Thes. Orn.* iii. p. 66 (1877).

Adult male. Upper parts brown-olive, with a slight purple-russet tinge on the mantle; upper part of the head dark grey, paler, almost whitish, on the forehead, and with a slight purple tinge on the occiput; hind neck greyish with a purple-violet wash; cheeks and ear-coverts rufescent; upper throat white; lower throat and breast vinous, changing into white on the abdomen and under tail-

coverts; the latter with a dusky-grey tinge on the outer webs; sides brown; quills greyish brown; under wing-coverts, axillaries, and inner webs of the quills, towards their bases, cinnamon; central 4 or 6 tail-feathers brown-olive, the remainder blackish brown tipped with white: "bill black, feet flesh-colour" (*Salvin*). Total length about 10·5 inches, wing 5·6, tail 3·8, bill 0·65, tarsus 1·25.

Female. Similar, only somewhat smaller.

Young birds are duller, more olive on the upper parts, with the feathers edged with rufous; more brown and less vinous on the breast, where some feathers have subterminal crescentic brown bands.

Hab. Eastern Mexico to Guatemala.

a, *b*. ♀ ad. et ♀ juv. sk.	Tampico, Mexico, Feb., March (*W. B. Richardson*).	Salvin-Godman Coll.
c. Juv. sk.	Atoyac, Vera Cruz, Mexico, April (*D. W. Smith*).	Salvin-Godman Coll.
d–*g*. ♂ ♀ ad. sk.	Teapa, Mexico, Feb. (*D. W. Smith*).	Salvin-Godman Coll.
h. ♀ ad. sk.	Valley of Mexico (*H. S. le Strange*).	Salvin-Godman Coll.
i. Ad. sk.	Vega del Casadero, Vera Cruz, Mexico, Dec. (*M. Trujillo*).	Salvin-Godman Coll.
k, *l*. Ad. sk.	Orange Walk, Brit. Honduras, Dec. (*G. F. Gaumer*).	Salvin-Godman Coll.
m. ♀ ad. sk.	Cayo, W. Dist. Brit. Honduras (*F. Blancaneaux*).	Salvin-Godman Coll.
n, *o*, *p*. Ad. sk.	Choctum, Vera Paz, Guatemala, Jan. (*O. S.*).	Salvin-Godman Coll.
q. ♂ ad. sk.	Choctum, Vera Paz, Guatemala (*O. S. & F. D. G.*).	Salvin-Godman Coll. (Type of species.)

4. Leptoptila rufaxilla.

Columba rufaxilla, *Richard & Bernard, Act. Soc. Hist. Nat. Paris*, i. p. 118, n. 74 (1792) (Cayenne); *Meyer, Zool. Annal.* i. p. 159 (1794); *Wagl. Syst. Av.* Columba, sp. 69 (part.) (1827).

Columba frontalis, *Temm. & Knip, Pig.* i. fam. trois. p. 18, pl. 10 (1808–11) (Gujana); *Less. Tr. d'Orn.* p. 474 (1831).

Columba jamaicensis, *Temm. Pig. et Gallin.* i. pp. 411, 495 (part.) (1813); *Vieill. N. D.* xxvi. p. 398 (part.) (1818); *Desm. Dict. Sc. Nat.* xl. p. 307 (part.) (1826); *Less. Compl. de Buff., Ois.* viii. p. 8 (part.) (1837); *id. op. cit.* 2nd ed. p. 271 (part.) (1838).

Peristera rufaxilla, *Selb. Nat. Libr., Pigeons*, pl. 24 (1835); *Hartl. Syst. Verz.* p. 90 (1844); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 53 (part.) (1856); *Gieb. Thes. Orn.* iii. p. 67 (part.) (1877).

Peristera jamaicensis, part., *Selb. Nat. Libr., Pigeons*, p. 270 (1835); *G. R. Gr. Gen. B.* ii. p. 476, n. 4 (part.) (1845); *Rchnb. Syn. Av.* ff. 1436–37 (1847) (*ex Temminck & Selby*); *Cab. in Schomb. Guiana*, iii. p. 744 (1848) (Guiana).

Leptoptila rufaxilla, *Sw. Class. B.* ii. p. 349 (1837); *Bp. Consp. Av.* ii. p. 73 (part.) (1854); *id. Compt. Rend.* xl. pp. 99, 220, n. 216 (1855); *id. Consp. Ordre Pig.* pp. 36, 58, n. 216 (1855); ? *id. Compt. Rend.* xlii. p. 945 (1856); *Rchnb. Tauben*, i. p. 25

(part.), t. 258. ff. 1436–37 (1862); ? *Sclat. & Salv. P. Z. S.* 1867, p. 591 (Mexiana), 1868, p. 60 (Guiana & valle Amaz. inf.), 1869, p. 598 (Cosnipata, Peru); *Pelz. Orn. Bras.* p. 279 (Borba, Rio Murià), pp. 451, liv (1870); *G. R. Gr. Hand-list*, ii. p. 242, n. 9381 (1870); *Sundev. Tent.* p. 100 (1872); *Sclat. & Salv. Nomencl. Av. Neotrop.* p. 133, n. 7 (1873); *Berl. J. f. O.* 1874, p. 244 (Guiana and N. Brazil); *Sclat. & Salv. P. Z. S.* 1879, p. 640 (Guiana, Yquitos, Cosnipata); *Sclat. List Vert. An.* 8th ed. p. 457 (1883); *Tristr. Cat. Coll. B.* p. 40 (1889); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 284 (1890).

Leptoptila dubusi, *Bp. Consp. Av.* ii. p. 74 (1854) (Rio Napo; type examined); *id. Compt. Rend.* xl. pp. 99, 220, n. 219 (1855); *id. Coup d'œil Ordre Pig.* pp. 36, 58, n. 219 (1855); *id. Compt. Rend.* xliii. p. 945 (1856); *Sclat. & Salv. P. Z. S.* 1866, p. 198 (River Ucayali), 1868, p. 60, 1873, p. 306 (Sarayacu, Santa Cruz); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 19 (1873).

Engyptila rufaxilla, *Sundev. Tent.* p. 100 (1872); *Salv. Cat. B. Strickl. Coll.* p. 550 (1882); *id. Ibis*, 1886, p. 174 (Guiana); ? *Allen, Bull. Am. Mus. N. H.* ii. p. 106 (1889) (Bolivia).

Adult. Forehead white-grey, changing on the crown into blue-grey, which again changes on the occiput into dull purple, and into bright purple-violet on the hind neck and upper mantle; remainder of the upper parts olive-brown, with a slight purple gloss on the back; chin and middle throat white; sides of the head and upper throat conspicuously rufescent; sides of the neck and lower throat vinous, paler on the breast; sides and flanks olive-brown; abdomen white; under tail-coverts more or less brown on the outer webs, white on the inner ones; primaries slate-brown; under wing-coverts cinnamon, bases of the inner webs of the quills cinnamon, more or less pure, there being scarcely a wash of cinnamon in some specimens; central tail-feathers olive-brown, the lateral ones blackish, the outer two pairs tipped with white; bill black; feet probably red. Total length about 10 inches, wing 5·4, tail 3·8, bill 0·6, tarsus 1·14.

Female. Similar to the male.

Some specimens have the purple colour of the hind neck more greyish; one of those enumerated below has the rufous colour of the sides of the head covering also the occipital region; a female from Quonga has the attenuated apical portion of the first primary much broader than in the other specimens.

Hab. Guiana, Amazonia, Peru, Ecuador, and Colombia.

This species is characterized by the conspicuous rufescent tinge on the sides of the head.

a. Ad. sk.	S. America.	Purchased.
b. Ad. st.	S. America.	Baron Laugier Coll.
c. Ad. st.	British Guiana.	Sir R. Schomburgk [P.].
d. Ad. sk.	British Guiana.	Purchased.
e, f. ♂ ♀ ad. sk.	Quonga, Brit. Guiana, Oct. (*H. Whitely*).	Salvin-Godman Coll.
g, h. ♀ ad. et ad. sk.	Bartica Grove, Brit. Guiana, Oct., Nov. (*H. Whitely*).	Salvin-Godman Coll.
i. ♀ ad. sk.	Is. of Mexiana, Lr. Amazons (*Wallace*).	Salvin-Godman Coll.

k. Ad. sk.	Para.	Gould Coll.
l. Ad. sk.	Pernambuco, Brazil (*W. A. Forbes*).	Salvin-Godman Coll.
m. ♀ ad. sk.	Yquitos, Upper Amazons, Sept. (*H. Whitely*).	Salvin-Godman Coll.
n. ♂ ad. sk.	Santa Cruz, Peruvian Amazons, Sept.	Salvin-Godman Coll.
o. ♂ ad. sk.	Cosnipata, Peru, Oct. (*H. Whitely*).	Salvin-Godman Coll.
p. Ad. sk.	Sarayacu, Ecuador (*C. Buckley*).	Salvin-Godman Coll.
q. Ad. sk.	Vicinity of Bogota, New Granada.	Salvin-Godman Coll.

5. Leptoptila bahiæ.

Leptoptila reichenbachi, *Berl.* (*nec Pelz.*) *J. f. O.* 1874, p. 246 (Bahia).

Leptoptila reichenbachi bahiæ, *Berl. Zeitschr. d. ges. Orn.* 1885, p. 177 (Bahia).

Similar to *L. reichenbachi*, but the violet colour of the hind neck much brighter, the breast and abdomen paler and of a more pure vinous and less red colour; under tail-coverts white, having only a small basal portion of the outer webs brown. Total length about 10 inches, wing 5·5, tail 3·8, bill 0·6, tarsus 1·1.

Hab. Bahia, Brazil.

a, b, c. Ad. sk.	Bahia (*Wucherer*).	Salvin-Godman Coll. (Compared with the type of the species.)

6. Leptoptila reichenbachi.

Columba rufaxilla, *Wied.* (*nec auct.*) *Reise nach Bras.* ii. p. 341 (1821); *id. Beitr.* iv. p. 474 (1832).

Peristera macrodactylus (*sic*), *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 56 (1856) (descr. nulla).

Peristera macrodactyla, *Bp. Compt. Rend.* xliii. p. 945 (=rufaxilla!) (1856).

Peristera frontalis, *Burm.* (*nec Temm.*) *Syst. Ueb. Th. Bras., Vög.* ii. p. 305 (1856).

Leptoptila erythrothorax, *Sclat. & Salv.* (*nec Temm.*) *P. Z. S.* 1868, p. 60 (Guiana! and Brazil); *G. R. Gr. Hand-list*, ii. p. 243, n. 9384 (part.) (1870); ? *Schleg. Mus. P.-B.* Columbæ, p. 160 (1873); ? *Sousa, Mus. Nac. Lisb.* Columbæ, p. 19 (1873); *Sclat. & Salv. Nomencl. Av. Neotrop.* p. 133 (1873) (Brazil); *Berl. J. f. O.* 1874, p. 247 (part.).

Leptoptila reichenbachii, *Pelz. Orn. Bras.* pp. 279, 337, 451, liv (1870) (Ypanema, S.E. Brazil); *G. R. Gr. Hand-list*, ii. p. 243, n. 9390 (1870); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 20 (1873); *Berl. J. f. O.* 1874, pp. 246, 247; *Berl. & Jher. Zeitschr. d. ges. Orn.* 1885, p. 177 (Rio Grande do Sul); *Pelz. & Lor. Ann. Naturh. Hofmus.* iii. p. 48 (1888).

Leptoptila rufaxilla?, *Cab.* (*nec auct.*) *J. f. O.* 1874, p. 230 (Cantagallo, *Euler*).

Leptoptila rufescens, *Berl. J. f. O.* 1874, pp. 246, 247 (Brazil); *Berl. Zeitschr. d. ges. Orn.* 1885, p. 177 (= L. reichenbachi).
Peristera erythrothorax, part., *Gieb. Thes. Orn.* iii. p. 66 (1877).
Peristera rufescens, *Gieb. Thes. Orn.* iii. p. 67 (1877).

Adult male. Upper parts glossy brown-olive; forehead whitish, changing into bluish grey on the crown; hind part of the head, nape, and upper mantle brown, with a purple gloss; chin and middle of the throat whitish; cheeks, sides of the neck, lower throat, and breast deep rufous vinous; sides and flanks brown; middle of the abdomen white; under tail-coverts brown, with the apical portion of the inner webs whitish; primaries brown; under wing-coverts and bases of the inner webs of the primaries cinnamon, the latter less bright; four central tail-feathers brown-olive, the remainder more slate, blackish towards the apical portion; the three outer pairs tipped with white: bill black, feet probably red. Total length 10·5 to 11 inches, wing 5·5 to 6, tail 4, bill 0·56 to 0·60, tarsus 1·15 to 1·30.

Hab. S. Brazil and Uruguay.

a. Ad. sk.	S. America (*Verreaux*).	Purchased.
b. Ad. st.	S. America.	Baron Laugier Coll. (Types of *Peristera macrodactylus*, G. R. Gr.)
c. ♂ ad. sk.	Mattodendro, Dec. (*Natterer*)*.	Salvin-Godman Coll.
d. Ad. sk.	Cantagallo, S.E. Brazil (*C. Euler*).	Salvin-Godman Coll. (One of the types of *Leptoptila rufescens*, Berl.)
e. Ad. sk.	Paysandu, Uruguay, Aug.	A. Peel, Esq. [C.].

7. Leptoptila chloroauchenia.

Paloma parda tapadas roxas, *Azara, Apunt.* i. p. 12, n. 320 (1803); *id. Voy.* (*ed. Sonn.*) iv. p. 130, n. 320 (1809); *Vieill. N. D.* xxvi. p. 399 (1818); *Bp. Compt. Rend.* xliii. p. 945, note (1856).
Columba jamaicensis, part., *Temm. Pig. et Gallin.* i. pp. 411, 495 (1813); *Desm. Nouv. Dict.* xl. p. 307 (part.) (1826); *Less. Compl. de Buff., Ois.* viii. p. 8 (part.) (1837); *id. op. cit.* 2nd ed. p. 271 (part.) (1838).
Columba rufaxilla, part., *Wagl. Syst. Av.* Columba, sp. 69 (1827).
Peristera jamaicensis, *Hartl.* (*nec Linn.*) *Ind. Azar. Apunt.* p. 20, n. 320 (1847) (excl. syn.); *G. R. Gr. Gen. B.* App. p. 24 (1849).
Peristera frontalis, form., *Burm.* (*nec Temm.*) *Syst. Ueb. Th. Bras., Vög.* ii. p. 305 (1856); *id. J. f. O.* 1860, p. 259, sp. 192; *id. Reise La Plata*, ii. p. 497, n. 190 (excl. syn.) (1861).
Leptoptila chalcauchenia, *Salvad. MS.*; *Sclat. & Salv. P. Z. S.* 9 Dec. 1869, p. 633 (Argentine Republic); *iid. Nomencl. Av. Neotrop.* p. 133, n. 5 (1873); *Berl. J. f. O.* 1874, pp. 243, 245, 247; *Durnf. Ibis*, 1877, p. 193; *Salv. Ibis*, 1880, p. 363 (Tucuman, Parana, La

* This specimen, received from the Vienna Museum, with Natterer's original label still attached, ought to be one of the typical specimens, but, strange enough, these (three in number) were said to be all from Ypanema! Mattodendro is mentioned by Pelzeln only among the localities of *L. ochroptera*.

Plata); *Barrows, Auk*, 1884, p. 275 (Entrerios); *Berl. & Jher. Zeitschr. d. ges. Orn.* 1885, p. 177 (Rio Grande do Sul).

Leptoptila chloroauchenia *, *Gigl. & Salvad. Atti R. Ac. Sc. Tor.* v. p. 274 (Jan. 2, 1870); *iid. Ibis*, April 1870, p. 186; *Salv. & Sclat. Ibis*, 1871, p. 435.

Peristera rufaxilla, *Reinh.* (*nec Temm.*) *Bidr. til Kunsk. etc. in Vid. Meddel.* 1870, p. 57, sp. 71, and p. 454; *Gieb. Thes. Orn.* iii. p. 67 (part.) (1877).

? Leptoptila megalura, *White* (*nec Scl. & Salv.*), *P. Z. S.* 1882, p. 626 (Salta).

Engyptila chalcauchenia, *Berl. J. f. O.* 1887, p. 124; *Sclat. Argent. Orn.* ii. p. 144 (1889); *Frenz. J. f. O.* 1891, p. 123.

Adult male. Above greyish brown; vertex, occiput, and hind neck plumbeous, with the feathers edged with iridescent bronzy green; forehead and chin whitish: fore neck and breast pale vinaceous, changing into white on the abdomen and under tail-coverts; quills brown, with narrow light outer edges, cinnamon towards the base of the inner webs; under wing-coverts cinnamon; central tail-feathers brown-grey, the remainder grey at the base, blackish towards the tip, which is white, the outer feathers have a narrow white edge on the outer webs: "iris orange; beak black; legs and feet pink" (*Durnford*). Total length about 11 inches, wing 6·2, tail 4·3, bill 0·75, tarsus 1·2.

Hab. S. Brazil, Paraguay, Uruguay, and Argentine Republic.

a. ♂ ad. sk.	Conchitas, Buenos Ayres, Oct. (*W. H. Hudson*).	Salvin-Godman Coll.
b. ♂ ad. sk.	Cosquin, Cordova, Arg. Republic, June (*S. W. White*).	Salvin-Godman Coll.
c. ♂ ad. sk.	Punta Lara, Arg. Republic, Oct.	H. Durnford, Esq. [C.].
d. Ad. sk.	Salta, Arg. Republic, June.	H. Durnford, Esq. [C.].

8. Leptoptila ochroptera.

Peristera brasiliensis, *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 54 (1856) (Brazil) (descr. nulla); *Bp. Compt. Rend.* xliii. p. 945 (1856).
Peristera brevipennis, part., *G. R. Gr. op. cit.* p. 54, specim. *a*, *b* (1856).
Columba ochroptera, *Natter. Cat. MS.*

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* This species was named by Dr. Giglioli and myself *L. chloroauchenia*, and the type, which was collected by the former in the Estancia Trinidad, near Montevideo, was sent for inspection to Dr. Sclater, who declared that it was new to him; accordingly we described our species in the Atti R. Ac. Sc. Tor. v. p. 274, at the meeting of January 2, 1870, and later in the 'Ibis,' April 1870, p. 186.

In the meanwhile Sclater and Salvin received the same bird from the Argentine Republic, and on the 9th Dec., 1869, read a short account of it under the name of *Leptoptila chalcauchenia*, Salvad., changing, perhaps inadvertently, the name given by us.

As there is no doubt that our original name and description were practically published before those of Sclater and Salvin (as the 4th part of the Proceedings of the Z. S. never appears before the months of April or May of the following year), I think I am justified in retaining the original name of *L. chloroauchenia*.

Leptoptila ochroptera, *Pelz. Orn. Bras.* pp. 278 (syn. emend.), 451, liv (1870); *G. R. Gr. Hand-list*, ii. p. 243, n. 9389 (1870); *Edd. Ibis*, 1871, p. 435; *Sclat. & Salv. Nomencl. Av. Neotrop.* p. 133, n. 4 (1873) (Brazil); ? *Forbes, Ibis*, 1881, p. 357 (N.E. Brazil); *Sclat. List Vert. An.* 8th ed. p. 437 (1887); *Tacz. Orn. Pér.* iii. p. 255, Tables, p. 102 (1886) (descr. from a Braz. specim.); *Pelz. & Lor. Ann. Naturh. Hofmus.* iii. p. 48 (1888).

Leptoptila brasiliensis, *G. R. Gr. Hand-list*, ii. p. 242, n. 9382 (1870); ? *Schleg. Mus. P.-B.* Columbæ, p. 159 (1873) (Brazil); ? *Sousa, Mus. Nac. Lisb.* Columbæ, p. 19 (1873); ? *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 284 (1889) (Brazil).

Homoptila decipiens, *Salvad. Atti R. Ac. Sc. Tor.* vi. p. 131 (1871) (Brazil).

Leptoptila chalcauchenia, part., *Berl. J. f. O.* 1874, pp. 243, 245, 247.

Engyptila ochroptera, *Salv. Cat. B. Strickl. Coll.* p. 550 (1882).

Peristera brasiliensis, part., *Gieb. Thes. Orn.* iii. p. 66 (1877).

Very similar to *L. chloroauchenia*, from which it differs in being smaller. Total length about 10·5 inches, wing 5·5, tail 4, bill 0·6, tarsus 1·15.

In specimens described by me under the name of *Homoptila decipiens*, the first primary is apparently missing or is imperfectly developed.

Hab. Brazil.

a, *b*. Ad. sk.	S. America.	Purchased. (Two of the types of *Peristera brevipennis*, G. R. Gr.)
c, *d*. Ad. st. et sk.	Brazil.	Lord Stuart de Rothesay [P.]. (Types of *Peristera brasiliensis*, G. R. Gr.)
e, *f*. ♀ ad. sk.	Sapitiba, Brazil, March, April (*Natterer*).	Salvin-Godman Coll. (One of types of the species.)
g, *h*, *i*. Ad. sk.	Bahia, Brazil (*Wucherer*).	Salvin-Godman Coll.
k. Ad. sk.	Pernambuco, Brazil (*W. A. Forbes*).	Salvin-Godman Coll.
l. ♀ ad. sk.	Chapada, Matto Grosso, June (*H. H. Smith*).	Salvin-Godman Coll.
m. ♂ ad. sk.	Corumba, Matto Grosso, July (*H. H. Smith*).	Salvin-Godman Coll.

9. **Leptoptila megalura.** (Plate XIII.)

Leptoptila megalura, *Sclat. & Salv. P. Z. S.* 1879, p. 640 (Bolivia); *Rchnw. & Schal. J. f. O.* 1880, p. 194.

Adult. Upper parts greyish brown, with a slight purple or amethystine lustre on some feathers; forehead whitish, a slight grey tinge on the crown; occiput and nape brown, with a slight amethystine tinge; hind neck and upper mantle brown-grey, with amethystine lustre; underparts vinous; cheeks light vinous grey; chin and middle of the throat white; middle of the abdomen and under tail-coverts white, the outer webs of the latter slightly greyish brown; quills greyish brown, with partial pale rufescent narrow edges; under wing-coverts, axillaries, and inner webs of the quills, except at

the tip, cinnamon; upper tail-coverts with paler greyish edges; central tail-feathers uniform with the back, the remaining five pairs greyish brown at the base, then blackish and broadly tipped with white: bill black; feet red. Total length about 11 inches, wing 5·8, tail 4·7, bill 0·6, tarsus 1·2.

This species is easily distinguished by the hind neck being grey with amethystine lustre, and no coppery or green reflections.

Hab. Bolivia.

a, b. Ad. sk.	Tilotilo, Prov. Yungas, Bolivia (*C. Buckley*).	Salvin-Godman Coll.	(Types of species.)

10. Leptoptila gaumeri.

Engyptila gaumeri, *Lawr. Ann. N. York Ac.* iii. p. 157 (1884) (Yucatan) (type examined); *Salv. Ibis*, 1885, p. 193 (=E. jamaicensis).

Engyptila jamaicensis, part., *Salv. Ibis*, 1885, pp. 186, 193 (Yucatan & Cozumel I.), 1889, p. 378 (Holbox I., Mugeres I., Cozumel I.), 1890, pp. 89, 91, 92, 93.

This species differs from *L. jamaicensis* in the more vinous tinge on the lower throat and breast, and reddish-brown tinge on the outer web of the primaries, which have distinct chocolate-rufous outer edges. Besides, the shafts of the tail-feathers are dark brown, while those of *L. jamaicensis* are light reddish brown.

The adult male (?) has the olive of the back and upper wing-coverts washed with purple, which is absent in other specimens, probably females.

Hab. Northern Yucatan, Cozumel, Holbox and Mugeres Islands.

a. Ad. sk.	Northern Yucatan (*G. F. Gaumer*).	Salvin-Godman Coll.	Compared with the type.
b. Ad. sk.	Cozumel Island, Yucatan, April (*E. C. Deris*).	Salvin-Godman Coll.	
c–z. ♂ ♀ ad. sk.	Cozumel Island, Yucatan (*G. F. Gaumer*).	Salvin-Godman Coll.	
a′–e′. Ad. sk.	Mugeres Island, Yucatan, Dec. (*G. F. Gaumer*).	Salvin-Godman Coll.	
f′, g′. Ad. sk.	Holbox Island, Yucatan, Dec. (*G. F. Gaumer*).	Salvin-Godman Coll.	

11. Leptoptila jamaicensis.

Columba minor, ventre candido, *Sloane, Voy. to Jam.* ii. p. 303, t. 262. f. 1 (1705–25).

Columba jamaicensis, *Briss. Orn.* i. p. 134, n. 31 (1760); *Linn. S. N.* i. p. 283, n. 25 (1766); *Gm. S. N.* i. p. 782, n. 25 (1788); *Lath. Ind. Orn.* ii. p. 595, n. 8 (1790); *Bonn. Enc. Méth.* p. 236 (1790); *Temm. Pig. et Gallin.* i. pp. 411, 495 (part.) (1813); *Vieill. N. D.* xxvi. p. 398 (part.) (1818); *Desm. Dict. Sc. Nat.* xl. p. 307 (part.) (1826); *Less. Compl. de Buff., Ois.* viii. p. 8 (part.) (1837); *id. op. cit.* 2nd ed. p. 271 (1838); *Denny, P. Z. S.* 1837, p. 39.

Pigeon de la Jamaïque, *Buff. Hist. Nat. Ois.* ii. p. 529, pl. 21 (1771).

White-bellied Pigeon, *Lath. Syn.* ii. 2, p. 619, n. 8 (1783).

Goura jamaicensis, *Steph. Gen. Zool.* xi. p. 126 (1819).

Columba rufaxilla, part., *Wagl. Syst. Av.* Columba, sp. 66 (1827).
Peristera jamaicensis, *Selb. Nat. Libr., Pigeons*, p. 207 (part.) (1835); *G. R. Gr. Gen. B.* ii. p. 476, n. 4 (1845) (excl. syn.); *Gosse, B. Jam.* p. 313 (1847); *id. Nat. Soj. in Jam.* p. 173 (1851); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 53 (1856); *Gieb. Thes. Orn.* iii. p. 67 (1877).
Leptoptila jamaicensis, *Rchnb. Av. Syst. Nat.* p. xxv (1852); *Bp. Consp. Av.* ii. p. 73 (1854); *id. Compt. Rend.* xl. pp. 99, 220, n. 214 (1855); *id. Coup d'œil Ordr. Pig.* pp. 36, 58, n. 214 (1855); *id. Compt. Rend.* xliii. p. 944 (1856); *id. Icon. Pig.* pl. 119 (1857); *Rchnb. Tauben*, i. p. 24 (1862); *March, Pr. Acad. N. S. Philad.* 1863, p. 302; *Sclat. & Salv. P. Z. S.* 1868, p. 60; *G. R. Gr. Hand-list*, ii. p. 242, n. 9379 (1870); *Sclat. & Salv. Nomencl. Av. Neotrop.* p. 133, n. 1 (1873) (Jamaica); *Edd. Ibis*, 1874, p. 456; *Sclat. List Vert. An.* 8th ed. p. 457 (1883) (Cozumel Isl.!); *Salv. Ibis*, 1885, p. 193 (part.) (Jamaica only); *Tristr. Cat. Coll. B.* p. 40 (1889).
Leptoptila albifrons, *Bp. Consp. Av.* ii. p. 74* (Mexico!, Cuba!) (type examined); *id. Compt. Rend.* xl. pp. 99, 220, n. 218 (1855); *id. Coup d'œil Ordre Pig.* pp. 36, 58, n. 218 (1855); ? *id. Compt. Rend.* xliii. p. 944 (1856); *Rchnb. Tauben*, i. p. 26 (1862); *Schleg. (nec Bp.) Mus. P.-B.* Columbæ, p. 160 (Cuba!) (1873); *Edd. Ibis*, 1874, p. 456 (=jamaicensis).
Leptoptila rufaxilla, *Rchnb. Tauben*, i. p. 25 (part.) (1862).
Engyptila jamaicensis, *A. & E. Newt. Handb. Jam.* p. 114 (1881); *Salv. Cat. B. Strickl. Coll.* p. 550 (1882); *Cory, List B. W. Ind.* p. 23 (1885); *id. Auk*, 1887, p. 111; *id. B. W. Ind.* p. 212 (1889); *Scott, Auk*, 1892, p. 123 (Jamaica).

Adult. Upper parts olive, glossy in some lights; forehead white, shading into grey on the crown and bronze-grey on the occiput; hind neck coppery red, with bronze or golden-green reflections on the lower part, and purple-blue ones where it joins the mantle; throat white-greyish; crop-region white, with an amethystine lustre, more conspicuous towards the side; lower breast, abdomen, and under tail-coverts white; sides slightly greyish brown; quills greyish brown, partially edged with whitish on the outer web; inner web of the quills below, under wing-coverts, and axillaries cinnamon; two central tail-feathers olive, the remainder greyish brown, with the tips, and the outer one also with the edge of the outer web, white; shafts of the tail-feathers light reddish brown; bill black; feet purple-pink (?). Total length about 11 inches, wing 6·25, tail 4·25, bill 0·65, tarsus 1·25.

Hab. Jamaica.

a. Ad. st.	Jamaica.	P. H. Gosse, Esq. [P.].
b. Ad. sk.	Jamaica (*Gosse*).	Salvin-Godman Coll.
c. Ad. sk.	Jamaica.	Zoological Society's Coll.

* According to Bonaparte there is a *Peristera albifrons*, G. R. Gr. List Spec. Br. Mus. p. 15, which he says (Compt. Rend. xliii. p. 944) is the same as *Geotrygon caniceps*, Cab., and *G. albifacies*, Gr. (?); but I have failed to discover that Gray ever established that name—certainly it is not in the 'List of Gallinæ' (1844).

d. Skeleton.	Jamaica.	Purchased.
e. Skeleton.	W. Indies.	Purchased *.

12. Leptoptila wellsi.

Engyptila wellsi, *Lawr. Auk*, i. p. 180 (1884) (Grenada) (type examined); *Cory, List B. W. Ind.* p. 23 (1885); *Wells, Pr. U.S. Nat. Mus.* 1886, p. 624 (Grenada); *id. List B. Grenada*, p. 7 (1886); *Cory, Auk*, 1887, p. 111; *id. B. W. Ind.* p. 212 (1889).

Adult male. Upper parts glossy olive; forehead white, scarcely tinged with vinous and slightly changing into grey on the crown; hind part of the head and nape dark olive-brown; chin and upper part of the throat pure white, well defined from the dull vinous colour of the cheeks, lower throat, and upper breast; lower breast,

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* I am not acquainted with the following two species, doubtfully distinct from *L. jamaicensis*:—

LEPTOPTILA COLLARIS.

Engyptila collaris, *Cory, Auk*, 1886, pp. 498, 502 (Grand Cayman), 1887, p. 112; *id. B. W. Ind.* p. 213 (1889).

"Forehead dull white; top of the head dark grey, showing a metallic tinge of purple on the nape; a cape of metallic purple showing greenish-red reflections where it joins the back; back dark brownish olive; throat dull white; breast dull vinaceous, shading into dull white on the belly; sides dull red-brown; under wing-coverts and under surface of wing rufous brown; primaries brown, having the inner webs heavily marked with rufous brown; tail slaty brown, two or three outer feathers tipped with white; feet red; bill black; iris dull white. Length 9·50 inches, wing 5·75, tail 3·50, tarsus 1·25, bill 0·75." (*Cory.*)

Hab. Grand Cayman.

Mr. Cory, writing to Mr. Salvin, says that this species is similar to *L. jamaicensis*, but seems to represent a fairly good insular race. From the description it is impossible to say how it differs from *L. jamaicensis*.

LEPTOPTILA NEOXENA.

Engyptila neoxena, *Cory, Auk*, 1887, p. 179 (St. Andrew's Is., Caribbean Sea).

"Resembles *Engyptila collaris*, but is more olive on the back, and lacks the violet-metallic collar, which is apparently replaced by green; the general colour of the upper parts more closely resembles that in *E. jamaicensis*, but the specimens of the latter bird now before me have the top of the head purplish, showing a greenish gloss on the occiput, while in *E. neoxena* the top of the head is white, shading to ash-grey.

"*Adult male.* Top of the head white, shading into grey on the occiput; chin and throat white, becoming purple or violet on the breast; sides of the neck and breast showing metallic purple mixed with metallic green when held in the light; feathers of the upper back showing metallic green, faintly tinged with purple; back dark olive; belly dull white; rest of plumage resembling that of *E. collaris*. Length 9 inches, wing 4·75, tail 4, tarsus 1." (*Cory.*)

Hab. St. Andrew's Island.

Obs. "But two specimens of this interesting bird were taken, and both were badly prepared. It is possible that a larger series would show it to be not specifically separable from *E. jamaicensis*." (*Cory.*)

abdomen, and under tail-coverts white, the latter slightly tinged with brown on the outer webs; sides brown; quills brown, inner webs, under wing-coverts, and axillaries cinnamon; tail olive-brown, with the shafts of the feathers brown, almost black; the outer tail-feathers brown-black, tipped with white: "bill black; tarsi and toes bright carmine-red" (*Lawrence*). Total length about 10 inches, wing 5·5, tail 4, bill 0·6, tarsus 1·3.

Hab. Grenada, Antilles.

a. ♂ ad. sk.	Grenada, W.I., Sept. (*D. W. Smith*).	Salvin-Godman Coll. (Compared with the type.)

13. Leptoptila pallida.

Leptoptila pallida, *Berl. & Tacz. P. Z. S.* 1883, p. 575 (Chimbo, W. Ecuador); *Tacz. & Berl. P. Z. S.* 1885, pp. 111, 117, 121; *Rchnw. & Schal. J. f. O.* 1885, p. 455.

Adult. Upper parts rufous brown, the interscapular region with a purple tinge; forehead white, changing into bluish grey on the crown; occiput and hind neck dull purplish grey; sides of the head with a pale ochreous tinge; chin and middle of the throat white; rest of the throat and breast pale vinous, greyish on the sides, and changing into white on the middle of the abdomen and under tail-coverts; the latter tinged with brown-olive on the outer webs; sides pale brown; primaries brown, the outer webs with narrow rufescent edges; under wing-coverts and inner webs of the quills towards the base cinnamon; tail rufous brown, the outer three (or four?) pairs of feathers more or less darker near the tips, which are white: "bill black; feet red; iris pale yellow" (*Stolzmann*). Total length about 9·5 inches, wing 5·5, tail 3·5, bill 0·6, tarsus 1·2.

Hab. Western Ecuador.

a. Ad. sk.	Balzar Mountains, W. Ecuador (*Illingworth*).	Salvin-Godman Coll.

14. Leptoptila cassini.

Leptoptila verreauxi, *Cass.* (*nec Bp.*) *Pr. Ac. N.S. Philad.* 1860, p. 195 (Turbo and R. Truando); ? *Lawr. Ann. Lyc. N. Y.* vii. p. 333 (1862) (R. Truando, New Granada).

Leptoptila ——?, *Sel. & Salv. P. Z. S.* 1864, p. 370 (Panama).

Leptoptila cassini, *Lawr. Pr. Ac. N. S. Philad.* 1867, p. 94 (Panama); *id. Ibis*, 1868, p. 230; *id. Ann. Lyc. N. Y.* ix. p. 137 (1868) (Costa Rica); *Sclat. & Salv. P. Z. S.* 1868, p. 60; *Frantz. J. f. O.* 1869, p. 371; *G. R. Gr. Hand-list*, ii. p. 243, n. 9387 (1870); *Sclat. & Salv. Nomencl. Av. Neotrop.* p. 134, n. 10 (1873) (Panama); *Rowl. Orn. Misc.* iii. p. 8, pl. xcii. (pt. xii., 1878); *Boucard, P. Z. S.* 1878, p. 43 (Costa Rica).

Peristera cassini, part., *Gieb. Thes. Orn.* iii. p. 66 (1877).

Engyptila cassini, *Zeledon, An. Mus. Nac. C. R.* 1887, p. 127 (Costa Rica).

Adult male. Upper parts olive-brown; forehead whitish grey,

changing into purer grey on the top of the crown, and into brown, with a slight purple tinge, on the occiput; hind neck grey, with a purple lustre; chin and middle of the throat whitish; cheeks, throat, sides of the neck, and breast grey, with a slight amethystine lustre in some lights and changing into vinous on the lower breast; flanks brown, middle of the abdomen whitish; under tail-coverts brown, with the inner webs white towards the apical portion; primaries greyish brown; under wing-coverts cinnamon; axillaries brown, tinged with rufous; inner webs of the quills towards the base slightly tinged with cinnamon; tail brown, the lateral ones blacker, the two outer pairs narrowly tipped with white: bill black; feet probably red. Total length about 9·5 inches, wing 5·25, tail 3, bill 0·58, tarsus 1·2.

Female. Similar to the male, but perhaps more olive on the upper parts.

Hab. Panama and Costa Rica.

a–d. ♂ ♀ ad. sk.	Lion Hill, Isthmus of Panama (*McLeannan*).	Salvin-Godman Coll.
e. Ad. sk.	Montana del Vermejo, Veragua (*Arcé*).	Salvin-Godman Coll.

15. Leptoptila vinaceiventris.

Engyptila vinaceiventris, *Ridgw. Pr. U.S. Nat. Mus.* 1887, p. 583 (Honduras).

Intermediate between *L. cassini* and *L. cerviniventris*, and very different from *L. rufinucha*, with which it has been compared in the original description: it differs from *L. cassini* in having the upper breast not pure grey, but more or less tinged with vinaceous, and the middle of the lower breast more vinous; from *L. cerviniventris* it differs in having the lower throat and upper breast more greyish.

I have compared the specimen mentioned below with the type of the species, from which it differs in showing a distinct purple tinge on the hind neck and mantle, due to the freshness of the plumage.

Hab. Honduras and Nicaragua.

a. ♂ ad. sk.	La Libertad, Chontales, Nicaragua, Jan. (*W. D. Richardson*).	Salvin-Godman Coll. (Compared with the type.)

16. Leptoptila cerviniventris.

Leptoptila, sp. ?, *Salv. Ibis*, 1861, p. 355 (Vera Paz).
Leptoptila cerviniventris, *Sclat. & Salv. P. Z. S.* 1868, pp. 59, 60 (Vera Paz, Guatemala); *G. R. Gr. Hand-list*, ii. p. 243, n. 9385 (1870); *Sclat. & Salv. Nomencl. Av. Neotrop.* p. 134, n. 9 (1873).
Leptoptila cassini, *Schleg.* (*nec Lawr.*) *Mus. P.-B.* Columbæ, p. 169 (1873) (Mexico!); *Edd. Ibis*, 1874, p. 456 (= L. cerviniventris).
Peristera cassini, part., *Gieb. Thes. Orn.* iii. p. 66 (1877)

Similar to *L. cassini*, from which it differs in having the upper breast greyish with a rufous tinge, and the vinous colour of the lower breast covering also part of the abdomen, so that the rufous colour on the underparts is much more extended than in the allied species, the breast being scarcely tinged with grey; the forehead and the sides of the head instead of being grey have constantly a slight vinous tinge, which only sometimes is present in *L. cassini*: bill black; feet probably red. Total length about 9 inches, wing 5·3, tail 3·4, bill 0·55, tarsus 1·18.

Female. Similar to the male.

Hab. Guatemala and British Honduras.

A specimen in Graf von Berlepsch's collection, said to be from Costa Rica (?), is brighter than any of the specimens mentioned below, and has a very conspicuous purple tinge on the hind neck and mantle and also on the region of the crop.

a, b. ♂ ♀ ad. sk.	Cayo, W. Dist., Brit. Honduras, April, May (*F. Blancaneaux*).	Salvin-Godman Coll.
c, d, e. Ad. et imm. sk.	Choctum, Vera Paz, Guatemala, Jan. (*O. S.*).	Salvin-Godman Coll. (Types of species.)
f, g. Ad. sk. et st.	Guatemala.	O. Salvin, Esq. [C.].

17. Leptoptila rufinucha.

Leptoptila rufinucha, *Sclat. & Salv. Nomencl. Av. Neotrop.* pp. 133, 162 (1873) (Veragua).

Engyptila rufinucha, *Zeledon, An. Mus. Nac. C. R.* 1887, p. 127 (Costa Rica).

Adult male. Upper parts glossy dark olive-brown; forehead grey, more or less with a slight vinous tinge; top of the crown ashy; occiput and nape bright rufous; mantle brown, with a purple tinge; throat whitish; breast grey, with a purple tinge on the sides, and changing into vinous on the lower part and on the abdomen, the lower part of the latter white; flanks more or less tinged with brown; under tail-coverts white on the inner web, brown on the outer one and at the base; primaries brown; under wing-coverts and the basal part of inner webs of the quills cinnamon; tail brown, the three outer feathers blacker and tipped with white: bill black; feet red. Total length about 9 inches, wing 5·3, tail 3·5, bill 0·55, tarsus 1·21.

Female. Similar to the male, but perhaps somewhat smaller and duller and the upper parts more olive.

Hab. Veragua.

a, b. ♂ ad. sk.	Volcan de Chiriqui (*Arcé*).	Salvin-Godman Coll.
c. ♂ ad. sk.	S. slope of the Volcano of Chiriqui (*Arcé*).	Salvin-Godman Coll.
d, e, f. ♂ ♀ ad. sk.	Bugaba, Chiriqui (*Arcé*).	Salvin-Godman Coll. (Types of species.)
g. Ad. sk.	Chiriqui (*Arcé*).	Salvin-Godman Coll.

29. OSCULATIA.

Osculatia, *Bp. Consp. Av.* ii. p. 73 (1854) ..... Type. O. sapphirina.

Range, Ecuador.

Key to the Species.

a. Occiput metallic green; a white spot on one of the inner secondaries ..... *sapphirina*, p. 563
b. Crown and occiput deep purple-blue; inner secondaries uniform, none with a white spot near the tip ..... *purpurea*, p. 563.

1. Osculatia sapphirina.

Geotrygon saphirina, *Bp. Mus. Paris*, 1853, *fide Bp. Consp. Av.* ii. p. 73 (1854).

Osculatia saphirina, *Bp. Consp. Av.* ii. p. 73 (1854); *id. Compt. Rend.* xl. pp. 101, 220, n. 213 (1855); *id. Coup d'œil Ordre Pig.* pp. 35, 58, n. 213 (1855); *id. Icon. Pig.* pl. 116 (1857); *Rchnb. Tauben*, i. p. 30 (1862); *G. R. Gr. Hand-list*, ii. p. 242, n. 9370 (1870); *Salv. Ibis*, 1878, pp. 447, 448, 449; *Sclat. & Salv. P. Z. S.* 1880, p. 155.

Geotrygon sapphirina, *Sclat. & Salv. Nomencl. Av. Neotrop.* p. 134, n. 10 (1873); *Gieb. Thes. Orn.* ii. p. 256 (1875).

Adult. Forehead white, changing into grey on the vertex; occiput golden green, changing into bronze-green with coppery or purple reflections on the hind neck and mantle; back, scapulars, and smaller upper wing-coverts purple; rump and upper tail-coverts purple-blue; cheeks whitish grey, bordered below by a purple-black band; sides of the neck grey; throat, breast, and abdomen white, the breast with a slight grey tinge; under tail-coverts buff or fulvous, with the hidden bases blackish; primaries slate-brown; secondaries and greater wing-coverts brown-chestnut, one of the inner secondaries with a white spot towards the tip of the outer web; outer under wing-coverts dark brown, the inner ones, the axillaries, and also the sides dull fulvous, mottled with grey dots; on the upper part of the sides there is a patch of short white feathers, bordered below by a purple band; quills underneath grey; tail slate-black, the lateral feathers with a grey terminal band, the outer feathers have a white spot near the tip of the outer webs: bill blackish; feet in dry skins pink. Total length about 9 inches, wing 5·3, tail 3·2, bill 0·65, tarsus 1·4.

Hab. E. Ecuador.

a–d. Ad. sk. Sarayacu, Ecuador, Dec., Feb. C. Buckley [C.].

2. Osculatia purpurea. (Plate XIV.)

Osculatia purpurea, *Salv. Ibis*, 1878, p. 448 (Ecuador).

Adult (type). Similar to *O. sapphirina*, but the crown and

occiput of a deep purple-blue, abruptly defined from the white forehead; hind neck bronze-green; back purple-violet; rump and upper tail-coverts violet-blue; wings very much as in *O. sapphirina*, but without the white spot near the tip of the outer web of one of the inner secondaries; tail as in the allied species, but wants the white spot near the tips of the outer tail-feathers, which have a slight indication of a white spot near the tip of the inner web; breast distinctly grey; rest of the underparts as in *O. sapphirina*: bill dark brown or black; feet pale brown in the dried skin. Total length about 8 inches, wing 5·2, tail 2·6, bill 0·66, tarsus 1·4.

Hab. Ecuador, but the real place is unknown.

a. Ad. sk. Ecuador (*J. Gould*). Salvin-Godman Coll. (Type of species.)

30. GEOTRYGON.

	Type.
Geotrygon, *Gosse, Birds of Jamaica*, p. 316 (1847)....	G. cristata.
Oreopeleia, *Rchnb. Av. Syst. Nat.* p. xxv (1852).....	G. martinica.
Oropeleia, *Bp. Ann. Sc. Nat.* 1854, p. 140, gen. 1681.	

Range. From Southern Mexico to Bolivia and Paraguay.

Key to the Species.

a. Tail, quills, and under wing-coverts for the greater part cinnamon.
  a'. Abdomen and under tail-coverts white .. *violacea*, p. 565.
  b'. Abdomen and under tail-coverts not white.
    a''. Upper parts rufous, with more or less purple reflections.
      a'''. Nape purple like the back.
        a^4. Smaller: wing from 5·35 to 5·75 inches; bill from gape 0·86 inch ..... *montana*, p. 567.
        b^4. Larger: wing about 6 inches; bill from gape 1·05 inch ..... *martinica*, p. 570.
      b'''. Nape and occiput metallic green .. *chrysia*, p. 571.
    b''. Upper parts olive, with violet and green reflections on the nape and mantle ..... *mystacea*, p. 572.
b. Tail dark, with no rufous tinge; quills more or less cinnamon like the under wing-coverts.
  c'. Primaries cinnamon both on the outer and inner webs..... *cristata*, p. 573.
  d'. Primaries cinnamon only towards the base of the inner webs.
    c''. Mantle violet; rump and upper tail-coverts purple-violet ..... *caniceps*, p. 574.
    d''. Upper parts dark brown-olive, with a dull purple tinge on the mantle and hind neck ..... *veraguensis*, p. 575.

e. Quills below uniform grey; under wing-coverts brown, but not cinnamon.
e'. Breast grey, slightly tinged with greenish.
e''. Upper parts dark olive; back violet-purple ..... *lawrencei*, p. 576.
f'. Upper parts brown-violet; hind neck green ..... *costaricensis*, p. 577.
f. Underparts greyish brown or rufous brown.
g''. Underparts greyish brown; forehead and cheeks vinous.
e'''. Vertex and occiput grey.
*e*⁴. Lighter: forehead and cheeks pale vinous ..... *bourcieri*, p. 577.
*d*⁴. Darker: forehead and cheeks dark vinous ..... *erythropareia*, p. 578.
d'''. Vertex and occiput vinous ..... *frenata*, p. 578.
h''. Underparts rufous brown; a black line, more or less distinct, borders the cheeks below.
e'''. Breast deep rufous; upper part of the head grey, with a slight tinge of greenish ..... *chiriquensis*, p. 579.
f'''. Breast pale rufous; head above not uniform.
*e*⁴. Forehead rufous.
*a*⁵. Occiput grey ..... *linearis*, p. 580.
*b*⁵. Occiput rufous vinous in the middle, grey on the sides .... *venezuelensis*, p. 581.
*f*⁴. Forehead whitish; vertex and occiput more or less grey; an occipital patch golden violet, in Mexican specimens narrower and duller, and bordered on the sides more broadly with grey; a dark line bordering the cheeks below, distinct only in some specimens.. *albifacies*, p. 581.

1. Geotrygon violacea.

Columba violacea, *Temm. & Knip, Pig.* i. fam. trois. p. 67, pl. 29 (1808–11); *Temm. Pig. et Gallin.* i. pp. 260, 470 (1813); *Vieill. N. D.* xxvi. p. 356 (1818); *Steph. Gen. Zool.* xi. p. 59 (1819); *Vieill. Enc. Méth.* i. p. 380 (1823); *Desm. Dict. Sc. Nat.* xl. p. 334 (1826); *Wagl. Syst. Av.* Columba, sp. 72 (1827); *Less. Tr. d'Orn.* p. 471 (1831); *id. Compl. de Buff., Ois.* viii. p. 46 (1837) (Saint Thomas !, *Maugé*); *id. op. cit.* 2nd ed. p. 281 (1838); *Burm. Syst. Ueb. Th. Bras., Vög.* ii. p. 307, note 2 (1856).

Peristera violacea, *G. R. Gr. List Gallinæ Brit. Mus.* p. 55 (1844); *Hartl. Syst. Verz.* p. 99 (1844); *G. R. Gr. Gen. B.* ii. p. 476, n. 5 (1845); *Rchnb. Syn. Av.* Columbariæ, *Novit.* t. 257 *b.* f. 3391 (*lege* 3386) (1851); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 55 (1856).

Leptoptila violacea, *Rchnb. fide Bp. Consp. Av.* ii. p. 72.

Geotrygon violacea, *Bp. Consp. Av.* ii. p. 72 (1854); *id. Compt. Rend.* xl. pp. 100, 220, n. 211 (1855); *id. Coup d'œil Ordre Pig.* pp. 35, 58, n. 211 (1855); *Lawr. Ann. Lyc. N. Y.* vii. p. 477

(Panama) (1862); *Sclat. & Salv. Exot. Orn.* p. 79 (1867); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 19 (1873); *Sclat. & Salv. Nomencl. Av. Neotrop.* p. 134, n. 13 (1873); *Gieb. Thes. Orn.* ii. p. 256 (1875) (syn. emend.); *Salv. Cat. B. Strickl. Coll.* p. 551 (1882).

Columba cayanensis, *Burm.* (*nec Briss.*) *Syst. Ueb. Th. Bras., Vög.* ii. p. 307 (1856).

Oreopeleia violacea, *Rchnb. Tauben*, i. p. 33, t. 257 *b.* f. 3386 (1862); *G. R. Gr. Hand-list*, ii. p. 242, n. 9375 (1870); *Pelz. Orn. Bras.* pp. 279, 451, lv (Ypanema) (1871).

Geotrygon albiventer, *Lawr. Pr. Ac. Nat. Sc. Philad.* 1865, p. 108 (Panama); *Ed. Ibis*, 1866, p. 120; *Lawr. Ann. Lyc. N. Y.* ix. p. 135 (1868) (Angostura, Costa Rica), p. 149 (1868); *Frantz. J. f. O.* 1869, p. 371; *Gieb. Thes. Orn.* ii. p. 254 (1875).

Geotrygon albiventris, *Sclat. & Salv. Exot. Orn.* p. 78 (1867).

Oreopeleia albiventer, *G. R. Gr. Hand-list*, ii. p. 242, n. 9377 (1870).

Starnœnas violacea, *Schleg. Mus. Pays-Bas*, Columbæ, p. 165 (1873) (type, Surinam).

Oropelia violacea, *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 285 (1889).

Adult. Forehead whitish, changing into grey on the vertex; on the occiput a purple-golden patch; hind neck and mantle metallic purple, with the base of the feathers brown; lower back olive, with the edges of the feathers dull purple; the feathers of the rump and the upper tail-coverts are dull cinnamon, with purple edges; sides of the head whitish grey; throat pure white, changing into vinous on the lower part and on the crop-region; this vinous colour again changes into white on the lower breast, abdomen, and under tail-coverts; upper wing-coverts and secondaries brown-olive, the smaller upper wing-coverts with more distinct purple edges; primaries cinnamon, with olive-brown tips; inner under wing-coverts white, with blackish tips, the outermost ones cinnamon; tail above cinnamon-purple, nearly uniform, underneath dull cinnamon, tinged with brown towards the tip of the inner webs: bill yellowish; feet pale in dry skins. Total length about 10 inches, wing 6·2, tail 3·75, bill 0·6, tarsus 1·1.

Female. Differs from the male in having the upper parts olive-brown, with purple reflections on the mantle, rump, and upper tail-coverts; upper breast brown; rest of the underparts white, with a slight buffy tinge.

Hab. Brazil and Central America.

The Central-American bird (*G. albiventer*) does not seem different from the Brazilian one, although there appears at present to be a large gap between the two areas of distribution. The type of *G. albiventer*, kindly lent to Mr. Salvin by Mr. Allen, shows that it is a young bird assuming adult plumage.

a, b. ♂ ♀ ad. sk. et st.	Brazil.	Lord Stuart de Rothesay [P.].
c, d. ♂ ad. sk.	Bahia, Brazil (*Wucherer*).	Salvin-Godman Coll.
e. ♂ ad. sk.	Bahia, Brazil.	Purchased.
f. ♂ ad. sk.	Panama.	Salvin-Godman Coll.

2. Geotrygon montana.

Mountain Partridge, *Sloane, Voy. to Jam.* ii. p. 304, t. 261. f. 1 (1705–25); *Edw. Birds*, ii. p. 119, pl. 119 (1750) (good).
Columba minor fulva, *Edw. op. cit.* p. 245, n. 119 (1750).
Perdix montana, *Ray, Syn. Av.* p. 183, n. 20.
Columba rufa cayennensis, *Briss. Orn.* i. p. 131, pl. xii. f. 2 (1760).
Columba montana, *Linn. S. N.* i. p. 281, n. 13 (1766); *Gm. S. N.* i. p. 772, n. 13 (1788); *Lath. Ind. Orn.* ii. p. 594, n. 3 (1790); *Bonn. Tabl. Enc. Méth.* p. 231, pl. 76. f. 2 (1790); *Vieill. N. D.* xxvi. p. 396 (1818); *Desm. Dict. Sc. Nat.* xl. p. 305 (part.) (1826); *Wagl. Syst. Av.* Columba, sp. 75 (part.) (1827); *Wied, Beitr.* iv. p. 479 (1832); *Less. Compl. de Buff., Ois.* viii. p. 6 (part.) (1837); *id. op. cit.* 2nd ed. p. 270 (part.) (1838); *D'Orb. in La Sagra's Hist. Nat. Cuba, Orn.* p. 178 (large ed. p. 131) (1839); *Gulliv. P. Z. S.* 1842, p. 195; *Denny, P. Z. S.* 1847, p. 39; *Sundev. Öf. K. Vet.-Ak. Förh.* 1869, p. 601, n. 50; *Gulliv. P. Z. S.* 1875, p. 489.
Pigeon roux de Cayenne, *D'Aubent. Pl. Enl.* 141; *Buff. Hist. Nat. Ois.* ii. p. 526 (1771).
Partridge Pigeon, *Lath. Gen. Syn.* ii. 2, p. 615, n. 3 (1783); *id. Suppl.* i. p. 197 (1787).
Columba martinicana, var. *β* (part.), *Gm. S. N.* i. p. 781 (1788).
Paloma roxa y amarilla, *D'Azara, Apunt.* i. p. 15, n. 321 (1803).
Colombi-Perdrix roux violet, *Levaill. Ois. d'Afr.* vi. p. 114, pl. 282 (1808); *Sunder. K. Sc. Vet.-Ak. Handl.* p. 55, n. 282 (1857).
? Columba martinica, *Temm. & Knip (nec Linn.), Pig.* i. fam. trois. pls. 5, 6 (1808–11); *Temm. Pig. et Gallin.* i. pp. 400, 433 (1813); *Vieill. N. D.* xxvi. p. 399 (part.) (1818); *Licht. Verz. Doubl.* p. 66, nos. 684, 685 (1823); *Desm. Dict. Sc. Nat.* xxvi. p. 305 (1826); *Less. Tr. d'Orn.* p. 475 (part.) (1831); *id. Compl. de Buff., Ois.* viii. p. 6 (1837); *id. op. cit.* 2nd ed. p. 270 (1838).
Goura montana, *Steph. Gen. Zool.* xi. p. 130 (1819).
Peristera montana, *G. R. Gr. List Gallinæ Brit. Mus.* p. 15 (1844); *id. Gen. B.* ii. p. 476, n. 3 (part.) (1845); *Hartl. Ind. Azara Apunt.* p. 20, n. 321 (1847); *Reichb. Syn. Av.* Columbariæ, f. 1132 (1847) (*ex Levaillant*); *Cab. in Schomb. Guiana*, iii. p. 744 (1848); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 55 (1856); *Leotaud, Ois. Trinid.* p. 375 (1866).
Geotrygon montana, *Gosse, B. Jam.* p. 320 (1847); *id. Nat. Soj. in Jam.* p. 173 (1851); *Bp. Consp. Av.* ii. p. 72 (1854); *id. Compt. Rend.* xl. pp. 100, 220, n. 210 (1855); *id. Coup d'œil Ordre Pig.* pp. 35, 58, n. 210 (1855); *Sclat. P. Z. S.* 1856, p. 309 (Cordova); *Cab. & Gundl. J. f. O.* 1856, p. 109 (Cuba); *Sallé, P. Z. S.* 1857, pp. 19 (Bogota), 235 (St. Domingo); *Sclat. P. Z. S.* 1859, pp. 368 (Jalapa), 433; *Brewer. Pr. Bost. Soc. Nat. Hist.* vii. p. 307 (1860); *Salv. & Sclat. Ibis*, 1860, p. 401 (Vera Paz); *Sclat. P. Z. S.* 1861, p. 80 (Jamaica); *Gundl. J. f. O.* 1861, p. 336; *Albrecht, J. f. O.* 1862, p. 204; *March, Pr. Ac. Nat. Sc. Philad.* 1863, p. 300; *Tayl. Ibis*, 1864, p. 171 (Porto Rico); *Sclat. & Salv. P. Z. S.* 1866, p. 198 (R. Ucayali), 1867, pp. 591 (Upper Rio Negro, Para), 753 (E. Peru); *iid. Ex. Orn.* pp. 78, 79 (1867); *Lawr. Ann. Lyc. N. Y.* ix. p. 135 (1868) (Costa Rica); *Sclat. P. Z. S.* 1869, p. 628; *Frantz. J. f. O.* 1869, p. 371 (Costa Rica); *Salv. P. Z. S.* 1870, p. 217 (Chiriqui); *Pelz. Orn. Bras.* pp. 279, 451, liv (1871); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 19 (1873); *Sclat. & Salv. P. Z. S.* 1873, p. 306 (E. Peru); *iid. Nomencl. Av. Neotrop.* p. 134, n. 11 (1873); *Baird, Brew., & Ridgw. Hist. B. N.*

Am. iii. p. 393 (1874); *Tacz. P. Z. S.* 1874, p. 556 (C. Peru); *Gundl. J. f. O.* 1874, pp. 294 (Cuba), 313 (Porto Rico); *Gieb. Thes. Orn.* ii. p. 255 (1875) (syn. emend.); *Boucard, P. Z. S.* 1878, p. 43 (San Carlos, Costa Rica); *Gundl. Anal. Soc. Esp. Hist. Nat.* vii. p. 348 (1878); *id. J. f. O.* 1878, pp. 161, 186; *Lawr. Pr. U.S. Nat. Mus.* i. pp. 196 (St. Vincent), 276 (Grenada), 487 (part.) (1878); *Sclat. & Salv. P. Z. S.* 1879, p. 640 (Bolivia); *Lister, Ibis*, 1880, p. 43 (St. Vincent); *A. & E. Newt. Handb. Jam.* p. 114 (1881); *Sumichr. Naturaleza*, v. p. 232, n. 36 (1881); *Tacz. P. Z. S.* 1882, p. 48 (N.E. Peru); *Salv. Cat. B. Strickl. Coll.* p. 550 (1882); *Sclat. List Vert. An.* 8th ed. p. 457 (1883); *Berl. & Jher. Zeitschr. d. ges. Orn.* 1885, p. 178 (Rio Grande do Sul); *Cory, B. Haiti & San Domingo*, p. 132 (1885); *id. List B. W. Ind.* p. 24 (1885); *Salv. Ibis*, 1886, p. 174 (Guiana); *Cory, Ibis*, 1886, p. 473 (St. Vincent); *Wells, Pr. U.S. Nat. Mus.* 1886, p. 625 (Grenada); *id. List B. Grenada*, p. 7 (1886); *Tacz. Orn. Pér.* iii. p. 260, Tables, p. 103 (1886); *Zeledon, An. Mus. Nac. C. R.* 1887, p. 127; *Cory, Auk*, 1887, p. 118; *Berl. J. f. O.* 1887, p. 124; *Ridgw. Man. N. Am. B.* p. 217 (1887); *W. E. D. Scott, Auk*, 1889, p. 160 (Key West); *Tristr. Cat. Coll. B.* p. 40 (1889); *Cory, B. W. Ind.* p. 219 (1889); *Allen, Bull. Am. Mus. N. H.* ii. p. 106 (1889) (Bolivia); *Hartert, Kat. Vogelsamml.* p. 187 (1891); *Scott, Auk*, 1892, p. 124 (Jamaica); *Chapm. Bull. Am. Mus. N. H.* iv. p. 293 (1892) (Cuba); *Bendire, Life-Hist. N. A. Birds*, p. 154 (1892).

Oreopeleia montana, *Rchnb. Av. Syst. Nat.* p. xxv (1852); *id. Tauben*, i. p. 31, t. 266. ff. 2882–83 (1862), ii. p. 165 (1862); *G. R. Gr. Hand-list*, ii. p. 242, n. 9374 (1870); *Pelz. Orn. Bras.* pp. 279, 451, liv (1871).

Geotrygon cayennensis, *Bp. Compt. Rend.* xl. p. 100 (1855).

Oreopelia montana, *Burm. Syst. Ueb. Th. Bras., Vog.* ii. p. 306 (1856).

Geotrygon sp., *Sclat. & Salv. P. Z. S.* 1864, p. 370 (Panama).

Columba (Geotrygon) montana, *Bryant, Pr. Bost. Soc. N. H.* x. p. 257 (1866), xi. p. 96 (St. Domingo) (1866).

Oropelia montana, *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 285 (1889).

Starnoenas montana, *Schleg. Mus. P.-B.* Columbæ, p. 165 (1873).

? Starnoenas cuprea, *Schleg. Mus. P.-B.* Columbæ, p. 165 (1873).

Adult male. Upper parts bright rufous, with a bright purple tinge, especially on the occiput, nape, sides of the neck, and mantle; under the eyes from the base of the lower mandible to the ear-coverts a pale reddish band, below which there is a second band of a rufous purple joining the occiput; throat and a band on the sides of the breast whitish fawn-colour; breast rufous purple; abdomen, vent, and under tail-coverts fawn-colour; quills rufous brown, brighter rufous on the outer web, and also on the inner web towards the base; under wing-coverts rufous; tail purple-rufous, the tips of the lateral feathers lighter: "bill horn-colour, with the base above carmine-red; feet reddish white, with the scales dark carmine-red, the scales of the toes scarcely red; naked skin round the eyes dull carmine-red; eyelids bright carmine-red; iris brownish orange-yellow" (*Gundlach*). Total length 9·25 inches, wing 5·75, tail 3·25, bill 0·5, tarsus 1·05.

Female. Upper parts dark olive, with a golden lustre; forehead and cheeks rufous, the latter bounded below by an olive band; throat whitish rufous; lower throat and breast olive-brown; lower breast and abdomen buffy, with a more or less distinct brown tinge; quills brown, with the base of the inner webs cinnamon; tail olive-brown above, with a rufous tinge towards the base of the feathers, very distinct on the under surface of the tail.

Young. "Above deep sepia-brown (with an olive cast in some lights), the wing-coverts sometimes mixed with rusty; forehead, chest, &c. dull cinnamon-brown; rest of underparts brownish buffy; quills mainly dusky, but inner webs broadly edged with rufous, especially towards the base." (*Ridgway.*)

Hab. Tropical America in general (including West Indies), north to Cuba (accidentally at Key West) and Eastern Mexico (Mirador), and south to Paraguay, Bolivia, and Peru.

a. ♂ ad. st.	Mexico.	Purchased.
b, *c*. ♂ imm. et ♀ ad. sk.	Vega del Casadero, Vera Cruz, Mexico, Dec. (*M. Trujillo*).	Salvin-Godman Coll.
d. ♂ imm. sk.	Temax, N. Yucatan, Nov. (*G. F. Gaumer*).	Salvin-Godman Coll.
e. ♂ ad. sk.	Orange Walk, Brit. Honduras, Dec. (*G. F. Gaumer*).	Salvin-Godman Coll.
f–*i*. ♂ ♀ ad. sk.	Choctum, Vera Paz (*O. Salvin*).	Salvin-Godman Coll.
k. ♂ ad. sk.	Savana Grande, Guatemala, Sept. (*O. S.*).	Salvin-Godman Coll.
l. ♀ ad. sk.	Chinandega, Nicaragua, May (*W.B.Richardson*).	Salvin-Godman Coll.
m–*p*. ♂ ♀ ad. et juv. sk.	La Libertad, Nicaragua Jan. (*W.B.Richardson*).	Salvin-Godman Coll.
q, *r*. ♂ ♀ ad. sk.	Southern slope of the Volcano of Chiriqui (*Arcé*).	Salvin-Godman Coll.
s. ♂ imm. sk.	Panama.	Tweeddale Coll.
t. ♀ ad. sk.	San Pablo Stn., Isthmus of Panama (*O. S.*).	Salvin-Godman Coll.
u. ♂ ad. sk.	Balzar Mts., Ecuador (*Illingworth*).	Salvin-Godman Coll.
v. ♂ ad. sk.	Sarayacu, Ecuador (*Buckley*).	Salvin-Godman Coll.
w. ♂ ad. sk.	Apollo, Bolivia (*Buckley*).	Salvin-Godman Coll
x. ♂ ad. sk.	Chamicuros, Sept.	Gould Coll.
y. ♀ ad. sk.	Upper Rio Negro, Brazil (*Wallace*).	Salvin-Godman Coll.
z, *a'*. ♂ ♀ ad. sk.	Para, Lower Amazons (*Wallace*).	Salvin-Godman Coll.
b', *c'*. ♂ ♀ ad. sk.	Bartica Grove, Brit. Guiana, Dec., Jan. (*H. Whitely*).	Salvin-Godman Coll.
d'–*g'*. ♂ ♀ ad. sk.	Bahia, Brazil (*Wucherer*).	Salvin-Godman Coll.
h'. ♂ ad. sk.	Brazil (*Natterer*).	Salvin-Godman Coll.
i', *k'*. ♂ ad. sk. et ♀ ad. st.	S. America.	Purchased.

l', *m'*. ♂ ♀ ad. sk.	San Christobal, Cuba (*G. F. Gaumer*).	Salvin-Godman Coll.
n'. ♂ ad. sk.	Cuba, Feb. (*Wright*).	Smithsonian Institution [P.].
o', *p'*. ♂ ad. et juv. sk.	Cuba, Feb. (*Wright*).	Salvin-Godman Coll.
q', *r'*, *s'*. ♂ ad. sk.; ♂ imm. et juv. st.	Jamaica.	Gosse Coll.
t'. ♂ ad. sk.	San Domingo, W. I (*Sallé*).	Salvin-Godman Coll.
u'. Ad. sk.	San Domingo (*Sallé*).	Cuming Coll.
v'. ♂ ad. sk.	La Viga, San Domingo, W. I., Aug. (*M. A. Frazar*).	Salvin-Godman Coll.
w', *x'*. ♂ ♀ ad. sk.	Puerto Plata, San Domingo, W. I., Dec., Jan. (*M. A. Frazar*).	Salvin-Godman Coll.
y'–f''. ♂ ♀ ad. sk.	St. Vincent, W. I., April–June, Aug., Nov. (*D. W. Smith*).	Salvin-Godman Coll.
g''–k''. ♂ ♀ ad. et ♀ juv. sk.	Grenada, W. I., Mar., May, July (*D. W. Smith*).	Salvin-Godman Coll.
l''. Skeleton.		Purchased.

3. Geotrygon martinica.

? Perdrix de la Martinique, *Feuillé, Journ. des Obs. phys.* p. 408 (1725).

Pigeon violet de la Martinique, *Briss. Orn.* i. t. 12. f. 1 (1760); *D'Aubent. Pl. Enl.* 162; *Buff. Hist. Nat. Ois.* ii. p. 525 (1771).

Columba violacea martinicana, *Briss. Orn.* i. p. 129, t. 12. f. 1 (1760).

Columba martinica, *Linn. S. N.* i. p. 283, n. 24 (1766) (*ex Brisson*); *Gm. S. N.* i. p. 781, n. 24 (excl. var. β) (1788); *Lath. Ind. Orn.* ii. p. 595, n. 7 (excl. var. β) (1790); *Vieill. N. D.* xxvi. p. 309 (part.) (1818); *Denny, P. Z. S.* 1847, p. 39.

Martinico Pigeon, *Lath. Syn.* ii. 2, p. 618, n. 7 (1783).

Goura martinica, part., *Steph. Gen. Zool.* xi. p. 132 (1819).

Columba cuprea, *Wagl. Syst. Av.* Columba, sp. 76 (1827).

Columba montana, part., *Less. Compl. de Buff., Ois.* viii. p. 6 (1837); *id. op. cit.* 2nd ed. p. 270 (1838).

? Peristera martinica, *Selb. Nat. Libr., Pigeons*, p. 209, pl. 25 (1835).

Peristera montana, part., *G. R. Gr. Gen. B.* ii. p. 476, n. 3 (1845).

Peristera cuprea, *G. R. Gr. Gen. B.* ii. p. 476, n. 15 (1845); ? *Reichb. Syn. Av.* f. 1439 (1847) (*ex Selby*).

Columba mystacea, *Lembeye* (*nec Temm.*), *Aves de Cuba*, p. 76 (1850); *Gundl. J. f. O.* 1870, p. 282.

? Oreopeleia martinicana, *Reichb. Av. Syst. Nat.* p. xxv (1852).

Geotrygon martinica, *Sclat. & Salv. Nomencl. Av. Neotrop.* p. 134, n. 12 (1873) (Martinica); *Gieb. Thes. Orn.* ii. p. 255 (1875).

Columba (Geotrygon) martinica, *Bryant, Pr. Bost. Soc. Nat. Hist.* xi. p. 96 (1866).

Geotrygon montana, *Lawr.* (*nec Linn.*) *Pr. U.S. Nat. Mus.* i. pp. 67 (Dominica), 360 (Martinica) (1878); *Allen, Bull. Nutt. Orn. Club*, v. p. 169 (1880) (Santa Lucia); *Sclat. P. Z. S.* 1889, p. 395 (St. Lucia).

Similar to *G. montana*, but larger, with a stronger bill, and of a

brighter violet colour, especially on the fore neck and breast. Total length about 11 inches, wing 6, tail 3·5, bill 1, tarsus 1·3.

Female. Rather darker than the continental females of *G. montana*, but not more than those from St. Vincent.

Hab. Dominica, Martinica, St. Lucia, and probably also Guadeloupe.

a, b. ♂ ad. sk.	Dominica, W. Indies (*F. A. Ober*).	Salvin-Godman Coll.
c, d, e. ♂ ♀ ad. et juv. sk.	St. Lucia, March, April.	Royal Society [P.].

4. Geotrygon chrysia.

Columba montana, *Temm. & Knip* (*nec Linn.*), *Pig.* i. fam. trois. p. 10, pl. 4 (1808–13); *Temm. Pig. et Gallin.* i. pp. 395, 492 (syn. emend.) (1813); *Desm. Dict. Sc. Nat.* xxvi. p. 305 (part.) (1826); *Aud.* (*nec Linn.*) *Orn. Biogr.* ii. p. 382, pl. clxvii. (1834); *Less. Compl. de Buff., Ois.* viii. p. 6 (part.) (1837); *id. op. cit.* 2nd ed. p. 270 (part.) (1838); *Aud. Syn.* p. 191 (1839); *Nutt. Man.* 2nd ed. i. p. 756 (1840); *Aud. B. N. Am.* v. p. 14, pl. cclxxxii. (1842).

Zenaida montana, *Bp.* (*nec Linn.*) *Comp. List*, p. 41 (1838).

Geotrygon martinica, *Bp.* (*nec Linn.*) *Consp. Av.* ii. p. 72 (1854) (syn. emend.); *id. Compt. Rend.* xl. p. 220, n. 212 (1855); *id. Coup d'œil Ordre Pig.* p. 58, n. 212 (1855); *Cab. & Gundl. J. f. O.* 1856, p. 108 (Cuba); *Baird, List*, n. 454 (1858); *Brewer, Pr. Bost. Soc. N. H.* vii. p. 307 (Cuba) (1860); *Gundl. J. f. O.* 1861, pp. 336, 416; *Coues, Check-list*, n. 376 (1874); *Gundl. J. f. O.* 1874, pp. 293 (Cuba), 313 (Porto Rico?); *id. An. Soc. Esp. Hist. Nat.* vii. p. 347 (1878); *id. J. f. O.* 1878, pp. 161, 186; *Ridgw. Cat.* n. 467 (1880); *Cory, B. Bahama Isl.* p. 141 (1880); *Maynard, B. E. N. Am.* p. 341 (1881); *Coues, Check-list N. Am. B.* 2nd ed. p. 92 (1882); *id. Key N. Am. Birds*, p. 571 (1884); *Cory, B. Haiti & San Domingo*, p. 133 (1885); *id. List B. W. I.* p. 24 (1885); *A. O. U. Check-list N. Am. Birds*, p. 182 (1886); *Ridgw. Man. N. Am. Birds*, p. 216 (1887); *Cory, Auk*, 1887, p. 119; *id. B. W. Ind.* p. 220 (1889); *Scott, Auk*, 1890, p. 90 (Key West); *Bendire, Life-Hist. N. A. Birds*, p. 153 (1892).

Geotrygon chrysia, *Bp. in litt. fide Consp.* ii. p. 72 (1854); *id. Compt. Rend.* xl. p. 100 (1855); *id. Coup d'œil Ordre Pig.* p. 35 (1855).

Peristera mystacea, *G. R. Gr.* (*nec Temm.*) *List B. Brit. Mus.* Columbæ, p. 55, specim. *a, b* (St. Domingo) (1856).

Oreopeleia martinica, *Bp.* (*nec Linn.*) *Compt. Rend.* xliii. p. 944 (1856); *Baird, B. N. Am.* p. 607 (1858); *Rchnb. Tauben*, i. p. 31 (descr. sed non ic. 1432, *err.* 1431) (1862); *Gundl. Repert. Fisico-Nat. Cuba*, i. p. 299 (1866); *G. R. Gr. Hand-list*, ii. p. 242, n. 9376 (1870); *Baird, Brew., & Ridgw. Hist. N.-Am. B.* iii. p. 393 (1874).

Columba chrysia, *Burm. Syst. Ueb. Th. Bras., Vög.* ii. p. 307 (1856).

Goura martinica, *Schleg.* (*nec Linn.*) *De Dierent.* p. 208 (1864).

Columba (Geotrygon) martinica, *Bryant* (*nec Linn.*), *Pr. Bost. Soc. Nat. Hist.* xi. p. 96 (St. Domingo) (1866).

Oropeleia martinica, *Hein. & Rchnw.* (*nec Linn.*) *Nomencl. Mus. Hein. Orn.* p. 285 (1889).

Adult. Forehead brownish red, changing into metallic green

with some violet reflections on the crown, occiput, and nape; rest of the upper parts cinnamon, with the feathers edged with brilliant metallic purple, duller and more golden on the lower back, rump, and upper tail-coverts; a band below the eyes and throat white; malar stripes reddish brown; lower throat and breast pale vinaceous, with a greyish tinge lower down, and changing into whitish on the abdomen; axillars pale reddish; under tail-coverts whitish, very minutely dotted or dusted with brown, and towards the bases brown; wings cinnamon, the smaller upper wing-coverts edged with brilliant purple, like the back; primaries brownish on the edges of the apical portion; under wing-coverts cinnamon; tail cinnamon, the lateral feathers whitish on the edges of the tips, and with brown dots near the tip: "bill red; feet light red; iris light brown" (*Cory*). Total length about 11 inches, wing 6, tail 4, bill 0·6, tarsus 1.

Female. Apparently differs from the male in being duller, and especially in having a good deal of pale brown on the wings.

Hab. Haiti, Cuba, Bahamas, and Florida Keys.

a. ♂ ad. sk.	Cuba.	Salvin-Godman Coll.
b. ♀ ad. st.	San Domingo.	Gosse Coll.
c. ♀ ad. sk.		Zoological Society's Coll.

5. Geotrygon mystacea.

Columba mystacea, *Temm. & Knip, Pig.* i. fam. sec. p. 124, pl. 56 (1808-11); *Temm. Pig. et Gallin.* i. pp. 275, 473 (1813); *Vieill. N. D.* xxvi. p. 355 (1818); *Shaw, Gen. Zool.* xi. p. 56 (1819); *Vieill. Enc. Méth.* i. p. 381 (1823); *Desm. Dict. Sc. Nat.* xl. p. 337 (1826); *Wagl. Syst. Av.* Columba, sp. 66 (1827); *Hearne, P. Z. S.* 1834, p. 110; *Less. Compl. de Buff., Ois.* viii. p. 62 (1837); *id. op. cit.* 2nd ed. p. 286 (1838); *Gullic. P. Z. S.* 1844, p. 10; *Burm. Syst. Ueb. Th. Bras., Vög.* ii. p. 307 (1856); *Gullic. P. Z. S.* 1875, p. 489.

Peristera mystacea, *G. R. Gr. Gen. B.* ii. p. 476, n. 13 (1845); *Reichb. Syn. Av.* Columbariæ, *Novit.* t. 257 *b*. f. 3387 (*errore, lege* 3382) (1851).

Geotrygon mystacea, *Bp. Consp. Av.* ii. p. 71 (1854); *id. Compt. Rend.* xl. pp. 100 (part., St. Lucia, nec Bogota), 220, n. 207 (1855); *id. Comptes Cail Ordre Pig.* pp. 35 (part.), 58, n. 207 (1855); *Sclat. P. Z. S.* 1855, p. 163; *Bp. Compt. Rend.* xliii. p. 943 (1856); *G. R. Gr. Hand-list*, ii. p. 243, n. 9394 (1870); *Sclat. P. Z. S.* 1871, p. 267; *Sclat. & Salv. Nomencl. Av. Neotrop.* p. 134, n. 2 (1873); *Gieb. Thes. Orn.* ii. p. 255 (1875); *Lawr. Pr. U.S. Nat. Mus.* i. p. 487 (1878) (Guadeloupe); *Sclat. P. Z. S.* 1879, p. 765 (Montserrat); *Allen, Bull. Nutt. Orn. Club*, v. p. 169 (1880) (Santa Lucia); *Sclat. List Vert. Av.* 8th ed. p. 457 (1883); *Cory, List B. W. Ind.* p. 24 (1885); *id. Ibis*, 1886, p. 475 (Grande Terre); *id. Auk*, 1887, p. 117; *id. B. W. Ind.* p. 218 (1889).

Oreopeleia mystacea, *Reichb. Tauben*, i. p. 32 (part.), t. 257 *b*. f. 3382 (1862).

Starnœnas mystacea, *Schleg. Mus. P.-B.* Columbæ, p. 164 (1873) (type).

? Geotrygon sp. inc., *Grisdale, Ibis*, 1882, pp. 486, 492 (Montserrat).

Adult male. Forehead brownish, shading into brown-green; hind neck and upper back metallic green, becoming bright purple, with purple reflections on reaching the back; lower back, rump, upper tail-coverts, wing-coverts, inner secondaries, and tertials olive-brown; broad malar stripes and middle of the throat whitish; a second malar stripe brown; front part of the neck and crop-region reddish, with metallic-green and purple reflections; breast light vinous, becoming whitish on the middle of the abdomen; sides, flanks, and under tail-coverts pale cinnamon, the latter with lighter tips; primary-coverts and primaries cinnamon, with brown apical portion; under wing-coverts cinnamon; tail dark olive-brown, with the lateral feathers mostly cinnamon, especially towards the base; tail underneath cinnamon, with the tip brown: bill and feet pale in dry skins. Total length about 11 inches, wing 6·5, tail 4, bill 0·8, tarsus 1·25.

Hab. Guadeloupe, Montserrat, Santa Lucia, and Grande Terre.

A specimen from Guadeloupe, not fully adult, is darker above and more brightly cinnamon on the primaries and outer tail-feathers.

a. ♀ ad. sk.	Guadeloupe, W. I. (*F. A. Ober*).	Salvin-Godman Coll.
b. Ad. sk.	Montserrat, W. I. (*Sturge*).	Salvin-Godman Coll.

6. Geotrygon cristata.

? Columba sylvatica major nigro-cœrulescens, *Brown, Jamaica*, p. 468.

Columba cristata, *Temm. & Knip* (*nec Gm.*), *Pig.* i. fam. sec. p. 20 (excl. syn.), pl. 9 (1808–11); *Temm. Pig. et Gallin.* i. pp. 108, 449 (1813) (syn. emend.); *Steph. Gen. Zool.* xi. p. 40 (1819) (syn. emend.); *Desm. Dict. Sc. Nat.* xl. p. 322, n. 33 (1826) (syn. emend.); *Wagl. Syst. Av.* Columba, sp. 14 (1827).

Columba pacifica, *Vieill.* (*nec Lath.*) *N. D.* xxvi. p. 347 (1818); *Lath. Hist. of B.* viii. p. 44 (part.) (1823); *Less. Compl. de Buff., Ois.* viii. p. 82 (1837); *id. op. cit.* 2nd ed. p. 291 (part.) (1838).

Peristera cristata, *G. R. Gr. Gen. B.* ii. p. 476, n. 14 (1845), App. p. 24 (1849); *id. List B. Brit. Mus.* Columbæ, p. 56 (1856).

Columbigallina versicolor, *Lafresn. Rev. Zool.* 1846, p. 321 (Jamaica).

Geophaps versicolor, *Des Murs, Iconogr. Orn.* pl. xlvii. (1847); *Rchnb. Syn. Av.* Columbariæ, *Novit.* t. 227. ff. 2482–83 (1851).

Geotrygon sylvatica, *Gosse, B. of Jam.* p. 316 (1847); *id. Illustr. B. of Jam.* pl. 84 (1849); *id. Nat. Soj. in Jam.* p. 173 (1851); *Albrecht, J. f. O.* 1862, p. 204; *Sclat. P. Z. S.* 1865, p. 239; *Hill, Pr. Ac. Nat. Sc. Philad.* 1867, p. 130; *Sclat. P. Z. S.* 1869, p. 628; *id. List Vert. An.* 8th ed. p. 458 (1883).

Peristera sylvatica, *G. R. Gr. Gen. B.* Index, p. 111 (1849).

Peristera versicolor, *G. R. Gr. Gen. B.* Index, p. 115 (1849).

Geotrygon cristata, *Rchnb. Syn. Av.* Columbariæ, *Novit.* t. 259. f. 2599 (1851); *id. Av. Syst. Nat.* p. xxv (1852); *Bp. Consp. Av.* ii. p. 70 (1854); *id. Compt. Rend.* xl. p. 220, n. 204 (1855); *id. Coup d'œil Ordre Pig.* pp. 34, 58, n. 204 (1855); *id. Compt. Rend.* xliii. p. 943 (1856); *G. R. Gr. Cat. B. Trop. Isl.* p. 43 (1859); *Rchnb. Tauben*, i. p. 33, t. 227. ff. 2482–83, t. 259. f. 2599 (1862);

March, Pr. Ac. Nat. Sc. Philad. 1863, p. 300; *Salv. P. Z. S.* 1867, p. 130; *G. R. Gr. Hand-list*, ii. p. 243, n. 9391 (1870); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 18 (1873); *Sclat. & Salv. Nomencl. Av. Neotrop.* p. 134, n. 1 (1873); *Gieb. Thes. Orn.* ii. p. 254 (1875); *Salv. Ibis*, 1878, p. 448; *A. & E. Newt. Handb. Jam.* p. 114 (1881); *Salv. Cat. B. Strickl. Coll.* p. 551 (1882); *Cory, List B. W. Ind.* p. 24 (1885); *id. Auk*, 1887, p. 117; *id. B. W. Ind.* p. 218 (1889); *Tristr. Cat. Coll. B.* p. 40 (1889); *Scott, Auk*, 1892, p. 125 (Jamaica).

Starnœnas cristata, *Schleg. Mus. P.-B.* Columbæ, p. 164 (1873).

Adult male. Forehead blackish grey, shading into olive-brown on the vertex and occiput; a broad malar stripe of a dull rufous; also the throat tinged with rufous; neck golden green, with purple reflections; interscapular region and upper wing-coverts purple-chestnut; lower back, rump, and upper tail-coverts dark greenish blue with some purple reflections; breast dark grey; middle of the abdomen pale vinous; sides, flanks, and under tail-coverts chestnut, the latter with pale edges; primaries cinnamon, with the tips, especially on the inner webs, greenish black; secondaries blackish green; under wing-coverts cinnamon; tail blackish green, underneath brown: bill black; feet yellow (in dry skins). Total length about 11 inches, wing 6·6, tail 4, bill 0·8, tarsus 1·3.

Young. Duller than the adult, with many dark olive feathers among the purple ones of the back and upper wing-coverts; greater wing-coverts brown, with rufous edges.

Hab. Jamaica.

This species has the frontal feathers rather long and stiff.

a. **Ad. st.**	**Jamaica.**	**Zoological Society's Coll.**
b. Ad. st.	Jamaica.	Purchased.
c. ♂ ad. sk.	St. Ann's, Jamaica, April (*W. T. March*).	Salvin-Godman Coll.
d. Ad. sk.	Jamaica (*Gosse*).	Salvin-Godman Coll.
e. Ad. sk.	Spanishtown, Jamaica (*W. T. March*).	Smithsonian Instit. [P.].
f. Juv. sk.	Jamaica.	Gosse Coll.
g. Ad. sk.		Purchased.
h. Skeleton.		Zoological Society's Coll.
i. Skull.	Jamaica.	Gosse Coll.

7. Geotrygon caniceps.

Columba caniceps, *Gundl. Journ. Bost. Soc. Nat. Hist.* vi. p. 315 (1852); *id. J. f. O.* 1870, p. 282.

Geotrygon caniceps, *Gundl. J. f. O.* 1856, p. 110; *Bp. Compt. Rend.* xliii. p. 943 (1856); *Sclat. P. Z. S.* 1858, p. 99; *Brewer, Pr. Bost. Soc. Nat. Hist.* vii. p. 307 (1860); *Gundl. J. f. O.* 1861, pp. 336, 416, 1862, p. 189; *id. Rep. Fisico-Nat. Cuba*, i. p. 300 (1866); *Salv. P. Z. S.* 1867, p. 130; *G. R. Gr. Hand-list*, ii. p. 243, n. 9390 (1870); *Sclat. & Salv. Nomencl. Av. Neotrop.* p. 134, n. 3 (1873); *Gundl. J. f. O.* 1874, p. 295; *Gieb. Thes. Orn.* ii. p. 254 (1875)

Cory, List B. W. Ind. p. 24 (1885); *id. Auk*, 1887, p. 118; *id. B. W. Ind.* p. 219 (1889).

Oreopeleia caniceps, *Rchnb. Tauben*, i. p. 32 (1862), ii. p. 165, *Novit.* t. i. f. 7 (1862).

Adult. Forehead greyish white, gradually changing into dark grey on the vertex and occiput; neck dark grey, with green and violet reflections; back metallic violet, changing into dark blue with purple reflections on the rump and shorter upper tail-coverts; the longer ones greyish black with blue-green reflections; throat whitish; breast grey; middle of the abdomen reddish white; sides, flanks, and under tail-coverts cinnamon, the latter with lighter tips; wings brown-grey, the wing-coverts with olive-greenish or purplish reflections in certain lights; quills greyish brown, with the base of the inner webs cinnamon; the primaries have a narrow cinnamon edge on the outer webs; tail greyish black: "bill horn-colour, with the basal part dark carmine; feet dirty reddish white; naked skin round the eyes grey, only the edge of the eyelids reddish grey; iris vermilion" (*Gundlach*). Total length 10·5 to 11·3 inches, wing 6, tail 3, bill 0·56, tarsus 1·26.

Female. Like the male.

Hab. Cuba.

a. Ad. sk. San Cristobal, Cuba. Salvin-Godman Coll.

8. Geotrygon veraguensis.

Geotrygon veraguensis, *Lawr. Ann. Lyc. N. Y.* viii. p. 349 (1866) (Veragua) (type examined); *Sclat. & Salv. Exot. Orn.* p. 78 (1867); *Salv. Ibis*, 1869, p. 317; *G. R. Gr. Hand-list*, ii. p. 243, n. 9401 (1870); *Salv. Ibis*, 1874, p. 328, pl. xii. (Mineral de Veraguas, to the S.E. of the Chiriquí Lagoon); *Gieb. Thes. Orn.* ii. p. 256 (1875).

Geotrygon rufiventris, *Lawr. Ann. Lyc. N. Y.* xi. p. 90 (1874) (Costa Rica); *Rowley, Orn. Misc.* iii. p. 77, pl. xciii. (part. xii., 1878).

Adult. Forehead and upper part of the cheeks white; two black lines border the white cheeks above and below; vertex grey, changing into dull violet-purple with golden reflections on the occiput, hind neck, upper part of back, and also on the lower part of the cheeks, sides of the neck, and upper breast; throat white, with the edges of the feathers more or less tinged with rufous brown; lower part of the breast purplish brown; abdomen, vent, and flanks brownish rufous; middle of the abdomen whitish with a rufous tinge; under tail-coverts brown on the hidden bases, rufous at the tip; lower back, rump, upper tail-coverts, and wings dark olive, with a golden lustre; primaries brownish slate-colour; under wing-coverts cinnamon, bases of the inner webs of the quills pale cinnamon; central tail-feathers dark grey-olive, the lateral ones dark grey, with the tips light greyish and a subterminal broad band nearly obsolete black: bill black; feet in the dried specimens

of a yellowish-brown colour. Total length about 9 inches, wing 5·25, tail 3, bill 0·65, tarsus 1·38.

Hab. Costa Rica, S.E. (Atlantic side) of Veragua and Panama.

Some specimens show the white of the forehead and upper part of the cheeks tinged with light rufous, and have no grey on the vertex; these are probably females. Mr. Lawrence's description of *G. veraguensis* is taken from a similar specimen. Mr. Salvin and myself have examined the type of *G. veraguensis*, which has been kindly lent us by Mr. Allen, and there is not the least doubt that it is the same as *G. rufiventris*. Mr. Salvin's plate of the type of *G. veraguensis* is too greenish on the back and upper wing-coverts, and shows too much white on the cheeks, on which there is no black line along the middle, under the eyes, that line depending upon the arrangement of the feathers which show the black bases. The original sketch was taken from the type specimen under glass while in Dr. Merritt's possession.

a. Ad. sk.	Montana del Vermejo, Veragua (*Arcé*).	Salvin-Godman Coll.
b–e. Ad. sk.	Veragua (*Arcé*).	Salvin-Godman Coll.
f. ♂ ad. sk.	Aqua Dulce, Panama.	Salvin-Godman Coll.

9. Geotrygon lawrencei.

Geotrygon veraguensis, *Salv.* (*nec Lawr.*) *P. Z. S.* 1867, p. 159 (Santiago de Veraguas).
Geotrygon lawrencii, *Salv. Ibis*, 1874, p. 329 (Veragua).

Adult male. Forehead, cheeks, and throat white; two black lines, one narrower under the eyes, the other under the cheeks: vertex grey, changing into dull green on the occiput and hind part of the neck; mantle and edges of the smaller upper wing-coverts dark purple; rest of the upper parts dark olive; breast grey, with a slight greenish tinge, especially on the sides; abdomen white in the middle, olive-brown on the sides; under tail-coverts white, some of them grey, especially on the outer webs; quills slate-grey, tertials dark olive like the back; quills underneath dark grey; under wing-coverts greyish brown; central tail-feathers dark olive, the lateral ones slate-grey, with a pale narrow terminal band: "bill black; feet red" (*Salvin*). Total length about 10 inches, wing 5·6, tail 3·1, bill 0·55, tarsus 1·6.

Young. Dark brown, with a black line along the reddish edges of the feathers of the upper parts and upper wing-coverts; some green reflections on the hind neck, and a purple tinge on the mantle; cheeks and throat whitish; two black lines, one under the eyes, the other under the cheeks sufficiently distinct.

Hab. Pacific side of Veragua.

a. Ad. sk.	Veragua (*Arcé*).	Salvin-Godman Coll.
b, *c*. Ad. et pull. sk.	Veragua (*Arcé*).	Salvin-Godman Coll.
d. ♂ ad. sk.	Calobre, Veragua (*Arcé*).	Salvin-Godman Coll. (Types of species.)

10. Geotrygon costaricensis.

Geotrygon costaricensis, *Lawr. Ann. Lyc. N. Y.* ix. p. 136 (1868) (Costa Rica); *Salv. Ibis*, 1869, p. 317; *Frantz. J. f. O.* 1869, p. 371; *G. R. Gr. Hand-list*, ii. p. 243, n. 9400 (1870); *Sclat. & Salv. Nomencl. Av. Neotrop.* p. 134 (1873); *Salvin, Ibis*, 1874, p. 328; *Gieb. Thes. Orn.* ii. p. 254 (1875); *Rowl. Orn. Misc.* iii. p. 45, pl. lxxxvii. (ad. & young) (pt. xi., 1877); *Boucard, P. Z. S.* 1878, p. 43; *Ridgw. Pr. U. S. Nat. Mus.* v. pp. 498, 502 (1882); *Zeledon, An. Mus. Nac. Costa Rica*, 1887, p. 127.

Adult male. Forehead, lores, and anterior part of the cheeks, next the lower mandible, white-buff; vertex grey, which gradually merges into the green of the occiput and hind neck; mantle purple; rest of the upper parts chestnut-purple; cheeks white, bordered below by a black line; throat also white, changing into grey, tinged with green on the lower front neck; breast grey, changing into whitish grey on the abdomen and under tail-coverts; sides brown; wings chestnut-rufous, with a slight purple tinge on the edges of the upper wing-coverts; primaries slate-grey, secondaries with a slight brown-olive tinge on the edges of the outer webs; underside of the wings grey, darker on the under wing-coverts; tail dark grey, the central feathers with a slight brown tinge, the lateral ones with a narrow terminal paler band: "bill hazel-brown; the under mandible yellowish at the end; tarsi and toes yellowish flesh-colour" (*Lawrence*). Total length about 10·5 inches, wing 5·5, tail 3, bill 0·6, tarsus 1·55.

Young. Like the young birds of the allied species, brown-chestnut, paler below, with crescentic black bands; a green patch on the nape.

Hab. Costa Rica.

a. ♂	ad. sk.	Candelaria, May.	Salvin-Godman Coll.

11. Geotrygon bourcieri.

Geotrygon bourcieri, *Bp. Mus. Paris*; *id. Consp. Av.* ii. p. 71 (1854) (Ecuador); *id. Compt. Rend.* xl. pp. 101, 220, n. 206 (1855); *id. Coup d'œil Ordre Pig.* pp. 34, 58, n. 206 (1855); *Sclat. P. Z. S.* 1860, p. 72; *Reichb. Tauben*, i. p. 34 (1862), ii. p. 165 (1862); *Sclat. & Salv. Exot. Orn.* p. 79 (part.) (1867); *G. R. Gr. Hand-list*, ii. p. 243, n. 9392 (1870); *Gieb. Thes. Orn.* ii. p. 254 (1875); *Berl. & Tacz. P. Z. S.* 1884, p. 312 (W. Ecuador); *Tacz. & Berl. P. Z. S.* 1885, pp. 69, 111, 123 (W. Ecuador, N. Peru); *Tacz. Orn. Pér.* iii. p. 259 (part.), Tables, p. 103 (1886); *Hein. & Reichw. Nomencl. Mus. Hein. Orn.* p. 285 (1889).

? Geotrygon frenata, *Tacz.* (*nec Tsch.*) *P. Z. S.* 1880, p. 213 (Cutervo, N. Peru).

Adult male. Upper parts rufous brown; mantle purple, in some specimens with a bluish-green lustre; forehead and cheeks vinous, changing into grey on the crown and occiput; nape with a purple tinge on the edges of the feathers; the vinous cheeks bordered below by a black line; throat white; upper part of the sides of the

neck grey; breast pale greyish brown; sides brown, middle of the abdomen whitish; under tail-coverts greyish, very minutely mottled with darker points; wings rufous brown, the smaller upper wing-coverts slightly edged with purple; primaries dark slate-grey; under wing-coverts greyish brown; tail brown: "iris yellow; bill black; legs in front and toes above red" (*Fraser*). Total length about 12 inches, wing 6·1, tail 3·75, bill 0·7, tarsus 1·75.

Young. Brown rufous, paler below, with crescentic bands both above and below.

Hab. Ecuador (and N. Peru ?).

Taczanowski says that the bird from Cutervo, N. Peru, differs from Ecuador specimens in having the plumbeous colour of the crown darker, and the reflections of the interscapular region *green* instead of *violet-blue*. Perhaps it belongs to a distinct species.

a. Ad. sk.	San José, Ecuador (*C. Buckley*).	Salvin-Godman Coll.
b. Ad. sk.	Monji, Ecuador (*C. Buckley*).	Salvin-Godman Coll.
c. Ad. sk.	Ecuador (*C. Buckley*).	Salvin-Godman Coll.

12. Geotrygon erythropareia.

Peristera erythropareia, *G. R. Gr. MSS. in Brit. Mus.*; *id. List B. Brit. Mus.* Columbæ, p. 56 (1856) (Ecuador, Verreaux's Coll.); *Bp. Compt. Rend.* xliii. p. 944 (note) (1856).

Geotrygon bourcieri, *Sclat. & Salv. (nec Bp.?) Exot. Orn.* p. 79 (part.), pl. xl. (1862); *G. R. Gr. Hand-list*, ii. p. 243, n. 9392 (part.) (1870); *Tacz. Orn. Pér.* iii. p. 259 (part.) (1886).

Similar to *G. bourcieri*, but differs in having the forehead and cheeks of a much deeper vinous colour, and the grey on the head also much darker; altogether it is a darker bird, especially on the underparts; the breast is decidedly *brown-grey*.

Hab. Ecuador.

a. Ad. st.	Ecuador.	Purchased of Verreaux. (Type of species.)
b. Ad. sk.	Jima, Ecuador (*Buckley*).	Salvin-Godman Coll.
c, *d*. Juv. sk.	Rosario, Ecuador (*Buckley*).	Salvin-Godman Coll.

13. Geotrygon frenata.

Columba frenata, *Tsch.* (*nec Temm.*) *Wiegm. Archiv f. Naturg.* 1843, 1, p. 386 (E. Peru); *id. Faun. Per., Aves*, pp. 45, 278, t. xxviii. (1844–46); *Burm. Syst. Ueb. Th. Bras., Vög.* ii. p. 307 (1856).

Starnœnas frenata, *G. R. Gr. Gen. B.* ii. p. 479, n. 3 (1845), *App.* p. 24 (1849).

Peristera frenata, *Rchnb. Syn. Av.* f. 1433 (1847).

Sturnœnas (sic) frenata, *Licht. Nomencl. Av.* p. 83 (1854) (Peru).

Geotrygon frenata, *Bp. Consp. Av.* ii. p. 71 (1854) (syn. emend.); *id. Compt. Rend.* xl. pp. 100, 230, n. 208 (1855); *id. Coup d'œil Ordre Pig.* pp. 35, 58, n. 208 (1855); *id. Compt. Rend.* xliii. p. 944 (1856); *Sclat. & Salv. Exot. Orn.* p. 79 (1867); *G. R. Gr. Hand-*

list, ii. p. 243, n. 9398 (1870); *Sclat. P. Z. S.* 1873, pp. 780, 783; *Sclat. & Salv. Nomencl. Av. Neotrop.* p. 134 (1873); *Taez. P. Z. S.* 1874, p. 556 (Centr. Peru); *Gieb. Thes. Orn.* ii. p. 255 (1875); *Sclat. & Salv. P. Z. S.* 1879, p. 640 (Bolivia); *Taez. Orn. Pér.* iii. p. 257, Tables, p. 103 (1886).

Oreopeleia frenata, *Rchnb. Tauben*, i. p. 32, t. 257. f. 1433 (1862).

Similar to *G. bourcieri*, but the vinous colour of the forehead and cheeks changing not into pure grey, but into greyish vinous on the crown and occiput, brighter along the middle part, paler and more grey on the sides. Total length about 13 inches, wing 6·2, tail 4, bill 0·65, tarsus 1·75.

Young. Similar to that of *G. bourcieri*.

Hab. Peru and Bolivia.

A specimen from Tilotilo, in Bolivia, apparently fully adult, has the vinous colour of the head of a much deeper hue, and the hind part of the neck decidedly olive, a feature which, according to Taczanowski, is distinctive of the female; the underparts are of a darker grey. The tarsus is even shorter (1·6 inch) than in two adult specimens, one from Peru, the other from Simacu, Bolivia, and even than in a young bird from Yuyo, Bolivia!

a. Ad. sk.	Huasampilla, Peru, March (*H. Whitely*).	Salvin-Godman Coll.
b. Ad. sk.	Simacu, Bolivia (*C. Buckley*).	Salvin-Godman Coll.
c. Ad. sk.	Tilotilo, Prov. Yungas, Bolivia (*C. Buckley*).	Salvin-Godman Coll.
d. Imm. sk.	Yuyo, Bolivia (*C. Buckley*).	Salvin-Godman Coll.

14. Geotrygon chiriquensis.

Geotrygon chiriquensis, *Sclat. P. Z. S.* 1856, p. 143 (Chiriqui, Panama), 1858, p. 99; *Rchnb. Tauben*, ii. p. 165 (part.) (1862); *Ed. Ibis*, 1866, p. 121; *Salv. P. Z. S.* 1867, pp. 130, 159; *Sclat. & Salv. Exot. Orn.* pp. 123, 124, pl. lxii. (1868); *Ed. Ibis*, 1869, p. 110; *Salv. Ibis*, 1869, pp. 317, 319; *Lawr. Ann. Lyc. N. Y.* ix. pp. 148, 149 (1868); *Salv. Ibis*, 1870, p. 114; *id. P. Z. S.* 1870, p. 217 (Veragua); *G. R. Gr. Hand-list*, ii. p. 243, n. 9395 (1870); *Sclat. & Salv. Nomencl. Av. Neotrop.* p. 134, n. 4 (1873); *Gieb. Thes. Orn.* ii. p. 254 (1875); *Boucard, P. Z. S.* 1878, p. 43 (Costa Rica); *Zeledon, An. Mus. Nac. Costa Rica*, 1887, p. 127; *Pelz. & Lor. Ann. Naturh. Hofmus.* iii. p. 48 (1888).

Geotrygon cæruleiceps, *Lawr. Ann. Lyc. N. Y.* ix. p. 136 (1868) (Cervantes, Costa Rica); *Salv. Ibis*, 1869, pp. 317, 319 (=chiriquensis); *Lawr. l. c.* p. 148 (1868); *Frantz. J. f. O.* 1869, p. 371.

Adult male. Upper parts purple-chestnut, with a slight bluish tinge on the mantle; upper parts of the head greyish, changing into greenish grey on the occiput and upper nape; cheeks reddish grey, bordered below by a black line; throat pale rufous whitish, changing into brown-purple on the breast and sides, paler on the abdomen and under tail-coverts; primaries and primary-coverts slate-brown; rest of the wing above purple-chestnut like the back; under wing-coverts rufous brown; tail above purple-chestnut, below

brown, the tips of the lateral feathers paler: bill black; feet red. Total length about 12 inches, wing 6, tail 4, bill 0·61, tarsus 1·65.

Female. Similar to the male, only smaller.

Young birds have the upper parts brown-chestnut, with the feathers barred with black; the underparts are lighter, with black crescentic bands; no grey on the head and no purple on the upper parts.

Hab. Veragua and Costa Rica.

a. ♂ ad. sk.	Castillo, Veragua (*Arcé*).	Salvin-Godman Coll.
b, *c*. ♀ ad. et juv. sk.	Calovevora, Veragua (*Arcé*).	Salvin-Godman Coll.
d, *e*, *f*. Ad. et juv. sk. et ad. st.	Veragua (*Arcé*).	Salvin-Godman Coll.
g. ♂ imm. sk.	Southern slope of the Volcano of Chiriqui (*Arcé*).	Salvin-Godman Coll.
h. Imm. sk.	Panama.	Tweeddale Coll.

15. Geotrygon linearis.

Columba linearis, *Prév. & Knip, Pig.* ii. pl. 55 (1838–43).
Columbigallina linearis, *Prév. op. cit.* p. 104 (1838–43).
Peristera linearis, *G. R. Gr. Gen. B.* App. p. 24 (1849); *id. List B. Brit. Mus.* Columbæ, p. 56 (1856).
Geotrygon linearis, *Bp. Consp. Av.* ii. p. 71 (1854); *id. Compt. Rend.* xl. pp. 100, 220, n. 209 (1855); *id. Coup. d'œil Ordre Pig.* pp. 35, 58, n. 209 (1855); *Sclat. P. Z. S.* 1855, p. 163; ? *Bp. Compt. Rend.* xliii. p. 944 (1856) (Ecuador!); *Sclat. & Salv. Exot. Orn.* p. 79 (1867); *G. R. Gr. Hand-list*, ii. p. 243, n. 9393 (1870); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 19 (1873); *Sclat. & Salv. Nomencl. Av. Neotrop.* p. 134 (1873); *Güb. Thes. Orn.* ii. p. 255 (1875); *Sclat. & Salv. P. Z. S.* 1879, p. 544 (St. Elena, Antioquia).
Oreopeleja linearis, *Reichb. Tauben*, i. p. 32 (1862), ii. p. 165, *Nov. Suppl.* t. i. f. 6 (1862) (*ex Knip*).
Starnoenas linearis, *Schleg. Mus. Pays-Bas*, Columbæ, p. 164 (1873).

Adult male. Upper parts rufous brown; mantle purple-bluish; forehead rufous, changing into vinous on the vertex, and into grey with a greenish lustre in the middle on the occiput; the grey colour bounded below by a whitish-grey band; hind part of the neck purple-brown; sides of the head whitish, near the base of the lower mandible rufous; a blackish line below the cheeks; throat whitish; crop-region dull greyish vinous; rest of the underparts reddish brown, paler, almost whitish, on the middle of the abdomen; wings rufous brown like the upper parts, tinged with purple on the smaller wing-coverts; primaries slate-brown, quills greyish brown below; under wing-coverts brown, the greater ones greyish brown; tail rufous brown, below brown, darker towards the tip of the inner web. Total length about 11 inches, wing 6·3, tail 3·8, bill 0·72, tarsus 1·2.

Female. Similar to the male.

Hab. Colombia.

a. ♀ ad. sk.	Santa Elena, Antioquia, U.S.C. (*T. K. Salmon*).	Salvin-Godman Coll
b. Ad. sk.	New Granada.	Salvin-Godman Coll.
c, *d*. Ad. st.	New Granada.	Purchased.
e, *f*. Ad. et juv. sk.	Bogota.	Salvin-Godman Coll.
g. Ad. sk.	Anolaima, W. slope of E. Cordillera, 5000 feet (*T. H. Wheeler*).	Salvin-Godman Coll.
h. Ad. sk.	Colombia.	Purchased.

16. Geotrygon venezuelensis.

Peristera frenata, *Jard.* (*nec Tschudi*) *Ann. & Mag. N. H.* xx. p. 374 (Tobago) (1847).

Geotrygon linearis, *Sclat. & Salv.* (*nec Prêv.*) *P. Z. S.* 1870, p. 782 (Merida); ? *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 285 (1889) (Porto Cabello).

Geotrygon frenata, *Tristr.* (*nec Tschudi*) *Cat. Coll. B.* p. 40 (Tobago) (1889).

Adult male. Similar to *G. linearis*, but the grey of the occiput confined to the sides, and not extended to the middle part, which is purple vinous: "iris brown-yellow" (*Goering*). Total length about 11 inches, wing 6, tail 4, bill 0·6, tarsus 1·5.

Hab. Venezuela.

A specimen from Tobago, not quite adult, in Canon Tristram's Collection, seems to belong to the present species, although it has a distinct greenish lustre on the hind neck, wanting in the Venezuela bird.

a. ♂ ad. sk.	Merida, Venezuela (*A. Goering*).	Salvin-Godman Coll. (Type of species.)

17. Geotrygon albifacies.

Peristera mexicana, *G. R. Gr. List Gallinæ Brit. Mus.* p. 15 (1844).

Peristera albifacies, *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 55 (1856).

Geotrygon caniceps, part., *Bp. Compt. Rend.* xliii. pp. 943, 949 (1856).

Geotrygon chiriquensis, *Bp.* (*nec Sclat.*) *Compt. Rend.* xliii. pp. 943 (Jalapa), 949 (1856); *Sclat. P. Z. S.* 1857, p. 206; *Sclat. & Salv. Exot. Orn.* p. 77, pl. xxxix. (1867).

Geotrygon albifacies, *Sclat. P. Z. S.* 1858, p. 98 (Jalapa), 1859, pp. 368, 391; *Salv. & Sclat. Ibis*, 1860, p. 401 (Guatemala); *Rchnb. Tauben*, ii. p. 165 (1862); *Sclat. & Salv. Exot. Orn.* pp. 123, 124 (1868); *Ed. Ibis*, 1869, p. 110; *Salv. Ibis*, 1870, p. 114; *G. R. Gr. Hand-list*, ii. p. 243, n. 9396 (1870); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 19 (1873); *Sclat. & Salv. Nomencl. Av. Neotrop.* p. 134, n. 8 (1873); *Gieb. Thes. Orn.* ii. p. 254 (1875); *Sumichr. Naturaleza*, v. p. 232, n. 35 (1881); *Ridgw. Man. N. Am. B.* p. 217 (1887); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 285 (1889); *Salv. Ibis*, 1892, p. 328 (Nicaragua).

Starnœnas albifacies, *Schleg. Mus. P.-B.* Columbæ, p. 164 (1873).

Adult. Forehead whitish, changing into grey on the vertex and

on the sides of the occiput; middle of the occiput greenish bronze; upper parts brown-chestnut with purple reflections; mantle with purple-blue reflections; sides of the head and throat of a whitish-fawn colour, changing into rufous brown on the breast; on the sides of the neck the dark or blackish sides of the base of the feathers show through in more or less regular lines; abdomen, vent, and under tail-coverts rufous; quills, bastard-wing, and primary-coverts dark brown; under wing-coverts brown, edged with brown-chestnut; tail above like the upper parts, the tips of the lateral feathers lighter; tail below brown, rufous about the middle, and paler at the tip: bill black, feet reddish. Total length about 11·5 inches, wing 6·25, tail 3·8, bill 0·63, tarsus 1·6.

Female. Similar to the male, only smaller.

Hab. Nicaragua, Guatemala, and Southern Mexico, north to Mirador.

The Mexican birds are much more grey on the occiput, where the median patch, instead of being golden purple, is purple-grey; the transition is so gradual, that I have not been able to separate the two forms.

a. Ad. sk.	Jalapa, S. Mexico.	De Oca [C.].
b. Ad. sk.	Jalapa, S. Mexico (*de Oca*).	Salvin-Godman Coll.
c, *d*, *e*. ♂ ♀ ad. et juv. sk.	Coatepec, Jalapa, Nov. (*M. Trujillo*).	Salvin-Godman Coll.
f. Ad. sk.	Coatepec, Nov. (*J. Brooks*).	Salvin-Godman Coll.
g–*k*. ♂ ad. et juv. sk.	Coatepec, Aug., Sept. (*F. Ferrari-Perez*).	Salvin-Godman Coll.
l, *m*, *n*. ♂ ad. et ♀ juv. sk.	Misantla, Mexico, June.	Salvin-Godman Coll.
o. Pull. sk.	Chilpancingo (4600 ft.), State of Guerrero, Mexico, July (*D. W. Smith*).	Salvin-Godman Coll.
p. Ad. sk.	Mexico. (Type of species and of *Peristera mexicana*, Gr.)	Purchased.
q, **r**. ♂ ♀ ad. sk.	Pie de la Cuesta, San Marcos, Guatemala, Nov. (*W. B. Richardson*).	Salvin-Godman Coll.
s. ♀ ad. sk.	San Martin, Guatemala, Oct. (*W. B. Richardson*).	Salvin-Godman Coll.
t, **u**. ♂ ♀ ad. sk.	El Rincon, San Marcos, Guatemala, Oct. (*W. B. Richardson*).	Salvin-Godman Coll.
v. ♀ ad. sk.	Atitlan, Guatemala, Dec. (*W. B. Richardson*).	Salvin-Godman Coll.
w. Ad. sk.	Savanna Grande, Pacific slope of Guatemala, Sept. (*O. S. & F. D. G.*).	Salvin-Godman Coll.
x–*b'*. ♂ ♀ ad. et juv. sk.	Volcan de Fuego, Guatemala (*O. S.*).	Salvin-Godman Coll.
c'. Ad. sk.	Volcan de Fuego, Guatemala, Nov. (*O. S.*).	Tweeddale Coll.
d'. Ad. sk.	Choctum, Vera Paz, Jan. (*O. S.*).	Salvin-Godman Coll.
e'. Ad. sk.	Guatemala.	Salvin-Godman Coll.

f. ♀ ad. sk.	Matagalpa, Nicaragua, Sept. (*W. B. Richardson*).	Salvin-Godman Coll.
g'. Ad. sk.	San Rafael del Norte, Nicaragua, March (*W. B. Richardson*).	Salvin-Godman Coll.

31. PHLOGŒNAS.

	Type.
Phlegœnas, *Rchnb. Syn. Av.* Columbariæ, *Novit.* t. 227. f. 2479 (1851); *id. Av. Syst. Nat.* p. xxv (1852)	P. luzonica.
Pampusana, "*Bp.*," *Pucher. Voy. Pôle Sud*, iii. *Ois.* p. 118 (1853); *Bp. Consp. Av.* ii. p. 89 (1854)	P. pampusan.
Phlegœnas, *Bp. Consp. Av.* ii. p. 88 (1854).	
Pampusan, *Bp. Compt. Rend.* xliii. p. 947 (1856)	P. erythroptera.
Phlogœnas, *Sclat. P. Z. S.* 1861, p. 366; 1865, p. 238.	

Range. Malay Archipelago (from the Philippines on the north to Wetter, of the Timor Group, on the south, and to the Solomon Islands on the east) and Polynesia.

Key to the Species.

a. A patch of feathers with long and stiff barbs on the middle of the crop-region.
  a'. Stiff feathers on the middle of the crop-region red or orange.
    a''. Forehead and crown grey; abdomen white, slightly washed with red ..... *luzonica*, p. 585.
    b''. Forehead, like the rest of the upper part of the head, metallic green.
      a'''. Stiff feathers of the crop-region very long, of a blood-red colour; breast and abdomen fawn-colour ..... *crinigera*, p. 587.
      b'''. Stiff feathers of the crop-region short and of an orange colour; breast and abdomen white; only the anterior smaller and median upper wing-coverts grey ..... *platenæ*, p. 588.
  b'. Stiff feathers on the middle of the crop-region ochreous reddish; wings chestnut, with four grey bands at the tip of the coverts.
    c''. Sides of the crown and occiput with a grey band ..... *rufigula*, p. 588.
    d''. Sides of the crown and occiput uniform with the rest of the head, with no grey bands ..... *helviventris*, p. 590.
b. No patch of stiff feathers on the middle of the crop-region; wings with no distinct bands.
  c'. Forehead yellow; crown and occiput metallic green.
    c''. A complete purple nuchal band; 4 or 5 central pairs of rectrices uniform olive-brown, the outer 3 or 2 pairs olive-brown, tipped with grey ..... *tristigma*, p. 590.

f''. Two purple spots on the sides of the neck, just below the occiput, leaving the intervening part of the nape metallic green; 4 central feathers of the tail brown, next pair grey with a brown subapical band, and the 4 outer pairs grey with a black subapical band ..... *bimaculata*, p. 591.

d'. Forehead not yellow.

g''. Head and hind neck of a light grey (first quill attenuated at the tip) ..... *hoedti*, p. 592.

h''. Head and hind neck not of a light grey.

c'''. Smaller: wing 4·7 inches to 4·2; anterior part of the head, like the anterior part and sides of the neck and breast, grey.

*a*⁴. Occiput and hind neck cinnamon .. *canifrons*, p. 592.

*b*⁴. Occiput and hind neck not cinnamon, but dark olive.

*a*⁵. Upper parts like the hind neck, dark bronze olive..... *beccarii*, p. 593.

*b*⁵. Upper parts olive bronze chestnut, more or less with a purple gloss.

*a*⁶. Grey colour of the head, throat, and breast much paler, almost whitish on the latter ..... *johannæ*, p. 594.

*b*⁶. Grey colour of head, throat, and breast very dark, scarcely paler on the lower part of the latter; upper parts of a rich chocolate, washed with purple. ..... *granti*, p. 594.

d'''. Larger: wing 6·2 inches to 5·8 inches.

*c*⁴. Forehead vinous rufous.

*c*⁵. Occipital patch slate-grey, with a greenish lustre; lower part of the pectoral vinous-rufous shield whitish; female with the back and wings distinctly olive-brown ..... *stairi*, p. 595.

*d*⁵. Occipital patch dusky chocolate-brown, not slate-grey, and with no greenish lustre; lower part of the pectoral vinous-rufous shield scarcely whitish; female with the back and wings chocolate-brown; rufous-cinnamon colour of the head, neck, and breast much darker than in *P. stairi* ♀ ..... *samoensis*, p. 596.

*d*⁴. Forehead black in the middle ..... *margaritæ*, p. 597.

*e*⁴. Forehead white.

*e*⁵. Crown, occiput, and nape not rusty isabelline.

c^6. Back as well as the scapulars and upper wing-coverts of a very fine purple-violet; occiput and hind neck slate-grey ..... *kubaryi*, p. 599.

d^6. Back greyish brown; only the upper mantle with a purple-violet tinge.

a^7. Crown, occiput, and hind neck black (?) (*Latham*), or slate-grey ("cinereo-fuscis," *Forster*) ..... *erythroptera*, p. 600.

b^7. Crown, occiput, and hind neck like the rest of the head and neck, and also the breast, white ..... *albicollis*, p. 601.

f^5. Crown, occiput, and nape rusty isabelline.

e^6. Underparts brown-black ..... *pampusan*, p. 602.

f^6. Underparts grey-black ..... *virgo*, p. 604.

1. Phlogœnas luzonica.

Tourterelle grise ensanglentée de l'isle de Luçon, *Sonner. Voy. Nouv. Guin.* p. 52, pl. 21 (1776).

Red-breasted Turtle, *Lath. Syn.* ii. 2, p. 657, n. 56 (1783).

Columba luzonica, *Scop. Del. Flor. et Faun. Insubr.* p. 94, n. 92 (1786) (*ex Sonner.*).

Columba cruenta, *Gm. S. N.* i. 2, p. 785, n. 66 (1788); *Lath. Ind. Orn.* ii. p. 611, n. 65 (1790); *Bonn. Tabl. Enc. Méth.* p. 250 (1790); *Temm. & Knip, Pig.* i. fam. trois. p. 16, pl. 8 (1808–11); *Temm. Pig. et Gallin.* p. 494 (1813); *Vieill. N. D.* xxvi. p. 403 (1818); *Wagl. Syst. Av.* Columba, sp. 73 (1827); *Less. Tr. d'Orn.* p. 474 (1831).

Columba cruentata, "*Lath.*" (*errore*), *Temm. Pig.* i. fam. trois. p. 16 (in syn.) (1808–11); *id. Pig. et Gallin.* i. p. 407 (1813); *Desm. Dict. Sc. Nat.* xl. p. 306 (1826); *Less. Compl. de Buff., Ois.* viii. p. 15 (1837); *id. op. cit.* 2nd ed. p. 273 (1838).

Goura cruenta, *Steph. Gen. Zool.* xi. p. 128 (1819).

Red-breasted Pigeon, *Lath. Gen. Hist.* vfii. p. 90 (1823).

Calænas cruenta, *Strickl. P. Z. S.* 1842, p. 168; *Cab. fide Bp. Consp. Av.* ii. p. 88.

Calænas luzonica, *G. R. Gr. List Gallinæ Brit. Mus.* p. 18 (1844); *id. Gen. B.* ii. p. 478, n. 3 (1845).

Phlegœnas luzonica, *Rchnb. Syn. Av.* Columbariæ, *Novit.* t. 227. f. 2479 (1851); *Wall. Ibis*, 1865, pp. 392, 399; *id. J. f. O.* 1866, p. 283, n. 104; *G. R. Gr. Hand-list*, ii. p. 246, n. 9442 (1870); *Schleg. Mus. P.-B.* Columbæ, p. 157 (1873); *Tristr. Cat. Coll. B.* p. 41 (1889).

Phlegœnas cruenta, *Rchnb. Av. Syst. Nat.* p. xxv (1852); *Bp. Compt. Rend.* xl. pp. 206, 221, n. 262 (1855); *id. Coup d'œil Ordre Pig.* pp. 45, 59, n. 262 (1855); *Rchnb. Tauben*, i. p. 40 (1862).

Phlegœnas cruenta, *Bp. Consp. Av.* ii. p. 88 (1854); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 22 (1873).

Calœnas luzonica, *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 63 (1856).
Phlogœnas cruenta, *Sclat. P. Z. S.* 1861, p. 366, 1863, p. 377; *Gould, B. Asia*, vi. pl. 51 (pt. xviii., 1866); *Sundev. Tentamen*, p. 100 (1872); *Hartert, Kat. Vogelsamml.* p. 189 (1891).
Calœnas (Phlegœnas) cruenta, *Mart. J. f. O.* 1866, p. 25.
Phlogœnas luzonica, *Wald. Tr. Zool. Soc.* viii. p. 29 note (1872), ix. pp. 221, 251 (1875); *Sharpe, Tr. Linn. Soc., Zool.* i. p. 348 (1876); *Tweedd. P. Z. S.* 1877, p. 700 (Monte Alban); *id. Orn. Works*, pp. 133, 384, 412, 525 (1881); *Wardl. Rams. Tweedd. Orn. Works*, p. 659 (1881); *Salv. Cat. B. Strickl. Coll.* p. 552 (1882); *Steere, List*, p. 24, n. 300 (1890) (Luzon).
Phlogœnas cruentata, *Garrod, P. Z. S.* 1873, pp. 468, 639, 1874, p. 250; *Wagenführ, J. f. O.* 1876, p. 334; *Sclat. List Vert. An.* 8th ed. p. 461 (1883); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 286 (1890).
Phlogœnas cruentatus, *Cab. J. f. O.* 1875, p. 126.
Phaps cruenta, *Gieb. Thes. Orn.* iii. p. 89 (1877).

Var. *albina*.

Tourterelle blanche ensanglentée de l'isle de Luçon, *Sonner. Voy. Nouv. Guin.* p. 51, pl. 20 (1776).
Columba nivea, *Scop. Del. Flor. et Faun. Insubr.* p. 94, n. 91 (1786) (*ex Sonner.*).
Sanguine Turtle, *Lath. Syn.* ii. 2, p. 657, n. 57 (1783).
Columba sanguinea, *Gm. S. N.* i. 2, p. 785, n. 65 (1788); *Lath. Ind. Orn.* ii. p. 611, n. 66 (1790); *Bonn. Tabl. Enc. Méth.* p. 250 (1790); *Vieill. N. D.* xxvi. p. 400 (1818).
Columba cruenta, var., *Temm. & Knip, Pig.* i. fam. trois. p. 17, pl. 9 (1808–11); *Temm. Pig. et Gallin.* i. p. 494 (1813); *Wagl. Syst. Av.* Columba, sp. 73 (var. *a*) (1827); *Rchnb. Syn. Av.* f. 1265 (1847).
Columba cruentata, var., *Temm. Pig. et Gallin.* i. p. 410 (1813).
Goura cruenta, var. *β*, *Steph. Gen. Zool.* xi. p. 128 (1819).

Adult male. Forehead and crown delicate grey; occiput, nape, back, scapulars, smaller wing-coverts, and sides of the breast dark grey, with the edges of the feathers metallic purple, changing in some lights into metallic green; lower back and rump duller; upper tail-coverts brown slate-colour; cheeks, throat, and breast white, on the middle of the breast a large patch of blood-red, the feathers long, stiff, and decomposed; lower part of the sides of the breast grey; lower breast white with a pinkish-red tinge; rest of the underparts buff, almost white on the middle of the abdomen; median and greater wing-coverts grey at the tip, brown-chestnut at the base, so that on the wing appear three grey bands produced by the tips of the wing-coverts and three chestnut bands produced by the base of the same; quills reddish brown, with the base of the inner webs cinnamon, like the under wing-coverts; two middle tail-feathers greyish brown like the upper tail-coverts, the remainder grey, with a subapical black band and lighter grey tips: irides dark brown; bill blackish brown; nostrils grey; tarsi and feet purplish red. Total length about 10 inches, wing 5·75, tail 3·75, bill 0·66, tarsus 1·4.

Female. Similar to the male, only a little smaller.

Hab. Luzon, Philippines.

This bird is said by Buzeta to occur also in the Calamines or Calamians Islands (*cf.* v. Martens, J. f. O. 1866, p. 25), but specimens from those islands have not been identified.

a. Ad. st.	Philippine Is.	Purchased.
b. ♂ ad. sk.	Luzon, Jan. (*Dr. A. B. Meyer*).	Tweeddale Coll.
c. Ad. sk.	Manilla (*Maitland-Heriot*).	Tweeddale Coll.
d, *e*. ♂ ♀ ad. sk.	Monte Alban, Feb., March (*A. H. Everett*).	Tweeddale Coll.
f. Ad. sk.	Indian Archipelago.	Baron Laugier Coll.

2. Phlogœnas crinigera.

Péristère crinigère, *Homb. & Jacq. Voy. Pôle Sud, Atlas*, pl. 27. f. 2 (1845) (type examined).

Calœnas (crinigère), *G. R. Gr. Gen. B.*, App. p. 24 (1849).

Peristera crinigera, part., *Rchnb. Syn. Av.* Columbariæ, *Novit.* t. 259. f. 2597 (*nec* 2596) (1851).

Pampusana criniger, *Pucher. & Jacq. Voy. Pôle Sud*, iii. *Ois.* p. 118 (1853) (Sooloo Isl.); *Hartl. J. f. O.* 1854, p. 166.

Phlegœnas criniger, *Bp. Consp. Av.* ii. p. 88 (1854).

Phlegœnas criniger, *Bp. Compt. Rend.* xl. pp. 206, 221, n. 264 (1855); *id. Coup d'œil Ordre Pig.* pp. 45, 59, n. 264 (1855); *Rchnb. Tauben*, i. p. 40, t. 249. f. 2597 (err. 2596, quæ *Ph. rufigula*) (1862); *Wall. Ibis*, 1865, pp. 392, 400; *G. R. Gr. Hand-list*, ii. p. 246 n. 9443 (1870).

Phlogœnas bartletti, *Sclat. P. Z. S.* 1863, p. 377, pl. xxxiv., 1865, p. 238.

Phlogœnas crinigera, *Sclat. P. Z. S.* 1865, p. 239; *Gould, B. of As.* vi. pl. 52 (pt. xviii., 1866); *Sclat. P. Z. S.* 1869, p. 628; *Garrod, P. Z. S.* 1874, p. 250; *Tweedd. P. Z. S.* 1877, pp. 817, 833 (Placer), 1878, p. 952 (Zamboanga); *id. Orn. Works*, pp. 544, 559, 643 (1881); *Wardl. Rams. Tweedd. Orn. Works*, p. 659, n. 289 (Mindanao) (1881); *Sclat. List Vert. An.* 8th ed. p. 461 (1883); *Steere, List*, p. 24 (1890) (Mindanao, Basilan).

Phlegœnas crinigera, *Wall. J. f. O.* 1866, p. 284, n. 105; *Tristr. Cat. Coll. B.* p. 41 (1879).

Phaps crinigera, *Gieb. Thes. Orn.* iii. p. 89 (1877).

Adult male. Head, upper part of the cheeks, hind part and sides of the neck, and mantle dark metallic green, changing into purple-chestnut on the back, scapulars, rump, and upper tail-coverts, the feathers of these parts more or less with amethystine edges; throat pure white; on the crop-region a broad patch of long, stiff, and hairy feathers of a dark red; remainder of the underparts buffy brown, paler on the under tail-coverts, nearly white on the middle of the abdomen; smaller upper wing-coverts grey, edged with metallic bronze-green; the remainder of upper wing-coverts brown-chestnut, broadly tipped with grey, but while on the median ones the brown-chestnut bases are almost hidden, the greater have only small grey spots at the tip, so that a broad chestnut band appears on the wing; primaries brown; secondaries chestnut; central rectrices

brown-chestnut, the lateral ones grey, with a broad subapical black band: "iris brown; bill black; legs dull carmine" (*Everett*). Total length about 11 inches, wing 6·3, tail 4, bill 0·75, tarsus 15.

Female. Similar to the male.

Young. Duller; the red patch on the crop-region partly ochreous, and the greater upper wing-coverts tipped with ochreous buff.

Hab. Mindanao, Basilan, and Sulu Island (?).

a. ♂ ad. sk.	Placer, July (*A. H. Everett*).	Tweeddale Coll.
f. ♂ ♀ ad. et ♂ imm. sk.	Zamboanga, March, April (*A.H.Everett*).	Tweeddale Coll.
g. Ad. sk.		Gould Coll. (Probable type of *Ph. bartletti*, Sclat.)
h, i. Juv. et pull. st.		Zool. Soc. Coll.

3. Phlogœnas platenæ.

Phlegœnas criniger, *Hartert* (*nec Puch. & Jacq.*), *J. f. O.* 1891, pp. 300, 302 (Mindoro).

Phlegœnas platenæ, *Blas. in litt.*; *Hartert*, *J. f. O.* 1891, p. 302 (descr. nulla).

Adult male (type). Upper part of head and nape dark metallic green, with amethyst reflections; forehead somewhat greyish; back, scapulars, and inner upper wing-coverts chestnut, with the edges of the feathers metallic amethyst; rump the same, but duller; longer upper tail-coverts and tail grey; throat, cheeks, chest, abdomen, and under tail-coverts white; on the middle of the crop-region an orange patch, being the stiff tips of the feathers of that colour; sides of the breast bronze-green, with amethyst reflections; sides buff; under tail-coverts with a slight buff tinge; the anterior upper wing-coverts broadly tipped with light grey; also the median wing-coverts have triangular grey spots at the tip; quills brown, with the inner webs partly cinnamon; under wing-coverts and axillars cinnamon; lateral tail-feathers of a lighter grey than the central ones, and with a broad subapical black band: "bill grey-blue, with the base blue-black; iris violet-red; feet cherry-red" (*Platen*). Total length about 11·5 inches, wing 5·9, tail 4, bill 0·75, tarsus 1·3. (*Mus. Braunschweig.*)

Female. Similar to the male, but slightly smaller. (*Mus. Braunschweig.*)

Hab. Mindoro, Philippines.

I have to thank Dr. W. Blasius for having lent me for description the types of this species; also Canon Tristram has sent me one of the typical specimens.

4. Phlogœnas rufigula.

Peristère à gorge rousse, *Hombr. & Jacq. Voy. Pôle Sud, Atlas*, pl. 27. f. 1 (inaccurate) (1845).

Calœnas (à gorge rousse), *G. R. Gr. Gen. B.*, App. p. 24 (1849).

Peristera crinigera, part., *Rchnb. Syn. Av.* Columbariæ, *Novit.* t. 259. f. 2596 (*nec* 2597) (1851).
Peristera rufigula, *Pucher. & Jacq. Voy. Pôle Sud*, iii. *Ois.* p. 118 (descr. nulla) (1853); *Hartl. J. f. O.* 1854, p. 166.
Phlegœnas rufigula, *Bp. Consp. Av.* ii. p. 89 (1854).
Phlegœnas rufigula, *Bp. Compt. Rend.* xl. pp. 206, 221, n. 265 (1855); *id. Coup d'œil Ordre Pig.* pp. 45, 59, n. 265 (1855); *Rchnb. Tauben*, i. p. 41, t. 259. f. 2596 (nec 2597, quæ *Ph. crinigera*) (1862); *Rosenb. N. T. N. I.* xxv. p. 250, n. 240 (1863); *id. J. f. O.* 1864, p. 133, n. 240; *Wall. Ibis*, 1865, pp. 393, 400, n. 107; *id. J. f. O.* 1866, p. 284, n. 107; *G. R. Gr. Hand-list*, ii. p. 247, n. 9444 (part.) (1870); *Schleg. Mus. P.-B.* Columbæ, p. 157 (1873); *Sclat. P. Z. S.* 1873, p. 698; *Meyer, Mitth. Zool. Mus. Dresd.* i. p. 11 (1875); *Rosenb. Malay. Archip.* p. 561 (1878); *Tristr. Cat. Coll. B.* p. 41 (1889).
Calœnas rufigula, *G. R. Gr. P. Z. S.* 1858, p. 196; *id. Cat. B. New Guin.* pp. 49, 61 (1859); *id. P. Z. S.* 1861, p. 438; *Finsch, Neu-Guin.* p. 179 (1865).
Phlogœnas rufigula, *Salvad. Ann. Mus. Civ. Gen.* vii. p. 791 (1875), ix. p. 205, n. 75 (part.) (1876), x. p. 160 (1877); *D'Alb. Nuova Guin.* p. 582 (1880); *Sharpe, Journ. Linn. Soc., Zool.* xvi. p. 446 (1882); *Salvad. Orn. Pap. e Mol.* iii. pp. 161, 561 (part.) (1882); *Rams. Pr. Linn. Soc. N. S. W.* viii. p. 15 (1883); *Guillem. P. Z. S.* 1885, p. 662 (Salawatti); *Salvad. Mem. R. Ac. Sc. Tor.* (2) xliii. p. 63 (*Agg. Orn. Pap. e Mol.* p. 189) (1891).
Phaps rufigula, *Gieb. Thes. Orn.* iii. p. 90 (syn. emend.) (1877).
? Chalcophaps helviventris, *Rams.* (*nec Rosenb.*) *Pr. Linn. Soc. N. S. W.* iv. p. 470 (1879) (S.E. New Guinea, *Goldie*).

Adult male. Forehead and crown buff-rufous, paler on the former; occiput, nape, upper back, sides of the neck and of the upper breast purple-greyish; rest of the upper parts vinous chestnut; a grey band from above the eyes along the sides of the occiput; cheeks pale vinous; throat, breast, and middle of the abdomen white; on the middle of the breast a yellow-ochreous patch, with the barbs of the feathers long and stiff; flanks and under tail-coverts buff; upper wing-coverts chestnut, with the tips grey, producing four grey bands on the wing-coverts; primaries brown, with narrow rufous outer edges; secondaries rufous brown; quills underneath grey; under wing-coverts brown, with buff or whitish tips; tail chestnut, two central feathers uniform, the lateral ones with grey tips, the two or three outer pairs grey also towards the base: "bill brown; feet dark purple; iris black" (*D'Albertis*). Total length about 9·5 inches, wing 5·4, tail 3·25, bill 0·6, tarsus 1·37.

Female. Similar to the male.

Young. Patch on the middle of the breast ochreous; bands across wings rufous instead of grey.

Hab. New Guinea, with the N.W. Papuan Islands—Waigiou, Salawatti, Mysol, and Jobi.

a.	Ad. sk.	Salawatti.	Salvin-Godman Coll.
b.	Ad. sk.	Mysol.	Purchased.
c.	♂ juv. sk.	Mambrioc, N.W. New Guinea, April.	Salvin-Godman Coll.

d. Ad. sk.	Astrolabe Mts., June (*A. Goldie*).	Tweeddale Coll.
e. Ad. sk.	Astrolabe Mts.	A. Goldie, Esq. [C.].
f. Ad. sk.	Astrolabe Mts.	Dr. Romilly [P.].
g. Ad. sk.	Vicinity of Port Moresby (*A. Goldie*).	Salvin-Godman Coll.
h. Ad. sk.	S.E. New Guinea (*A. Goldie*).	Salvin-Godman Coll.

5. Phlogœnas helviventris.

Peristera rufigula, *Schleg.* (*nec Pucher. & Jacq.*) *N. T. D.* iii. p. 345 (1866); *Rosenb. Reis naar Zuidoostereil.* p. 124 (1867).
Ptilopus (!) helviventris, *Rosenb. N. T. N. I.* xxix. p. 144 (1867); *id. Reis naar Zuidoostereil.* pp. 59, 124 (1867); *Gieb. Thes. Orn.* iii. p. 364 (1877); *Salvad. Ann. Mus. Civ. Gen.* ix. p. 206 (note) (1876).
Phlegœnas rufigula, part., *G. R. Gr. Hand-list*, ii. p. 247, n. 9444 (1870).
Phlogœnas rufigula, part., *Salvad. Ann Mus. Civ. Gen.* ix. p. 205, n. 75 (specim. from Aru I.) (1876); *Rosenb. Malay. Archip.* p. 372 (1878); *Salvad. Orn. Pap. e Mol.* iii. p. 561 (1882).
Phlogœnas helviventris, *D'Alb. & Salvad. Ann. Mus. Civ. Gen.* xiv. p. 122 (1879); *D'Alb. Nuova Guin.* p. 588 (1880); *Salvad. Orn. Pap. e Mol.* iii. p. 164 (1882); *Finsch & Meyer, Zeitschr. f. ges. Orn.* 1886, p. 28 (Horseshoe Range); *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 63 (*Agg. Orn. Pap. e Mol.* p. 189) (1891).
Phaps rufigula, part., *Gieb. Thes. Orn.* iii. p. 90 (1877).

Similar to *Ph. rufigula*, but the grey band on the sides of the occiput is absent.

Hab. Aru Islands and Southern New Guinea, along the Fly River (and also the Horsesboe Range ?).

a. Ad. sk. [Waigiou.] Purchased.

6. Phlogœnas tristigma.

Columba tristigmata, *Temm. Mus. Lugd.* (Tondano, Celebes), *unde*
Phlegœnas tristigmata, *Bp. Consp. Av.* ii. p. 88 (1854).
Phlegœnas tristigmata, *Bp. Compt. Rend.* xl. pp. 207, 221, n. 263 (1855); *id. Coup d'œil Ordre Pig.* pp. 45, 59, n. 263 (1855); *Wall. Ibis*, 1860, p. 142 (N. Celebes), 1865, pp. 393, 400, pl. 9 (♀); *id. J. f. O.* 1866, p. 284; *id. Malay. Archip.* i. p. 413 (1869); *G. R. Gr. Hand-list*, ii. p. 247, n. 9445 (1870); *Schleg. Mus. P.-B.* Columbæ, p. 158 (1873); *Rosenb. Malay. Archip.* p. 275 (1879).
Phlegœnas tristigmatica, *Rchnb. Tauben*, i. p. 40 (1862).
Goura tristigmata, *Schleg. De Dierent.* fig. p. 209 (1864).
Carpophaga (!) tristigma, *Finsch, Neu-Guin.* p. 178 (1865).
Phlogœnas tristigmata, *Wald. Tr. Zool. Soc.* viii. p. 85 (1872); *Gould, B. of Asia*, vi. pl. 59 (pt. xxv., 1873); *Meyer, Ibis*, 1879, p. 137 (Gorontalo); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 287 (1890).
Phaps tristigmata, *Gieb. Thes. Orn.* iii. p. 91 (1877).

Adult male. Forehead yellow, crown and occiput metallic green; below the occiput a transverse purple-violet band; hind neck grey,

with the edges of the feathers coppery amethystine ; rest of the upper parts olive-brown, inclining to russet on the wings, upper tail-coverts, and upper surface of the tail ; cheeks and throat grey, the latter paler ; crop-region grey, with a wash of yellowish olive ; breast pale yellow, changing into whitish on the middle of the abdomen ; sides and flanks brown ; under tail-coverts white, with the edges olive-brown ; primaries greyish brown ; secondaries olive-brown with a tinge of russet ; under wing-coverts dark olive-brown, with the tips fulvous, the longer ones white, with brown bases ; axillars brown, with light ochreous tips ; the four or five central pairs of tail-feathers olive-brown with a tinge of russet, the outer three or two pairs tipped with grey * : "bill dusky purplish, apex dark horn ; orbits pale slaty ; eyelids dull purple ; legs carmine-red ; toes slaty purple ; claws pale horny" (*Wallace*). Total length about 13·5 inches, wing 7, tail 4·5, bill 0·82, tarsus 1·8.

An *immature bird* in the Leyden Museum, with the edges of the greater upper wing-coverts rufous, has the purple band across the nape, like the adult bird, but narrower.

Hab. N. Celebes.

a. ♂ ad. sk. Menado, N. Celebes. Wallace Coll.

7. Phlogœnas bimaculata.

Phlegœnas tristigmata, *Wall. Ibis*, 1865, p. 393 (part., Makassar) ; *id. J. f. O.* 1866, p. 284 ; *id. Malay Archip.* i. p. 413 (part., South Celebes) (1869) ; *Gould* (*nec Temm.*) *B. of As.* vi. pl. 59 (pt. xxv., 1873).

Phlogœnas bimaculata, *Salvad. Bull. Br. Orn. Club*, no. iii. p. x (1892).

Similar to *Ph. tristigma*, of which it is the southern representative, and from which it differs in being somewhat duller, less yellow on the breast, and less coppery amethyst on the hind neck and mantle, and principally in having two purple-violet spots on the sides of the upper nape, so that the nape along the middle is entirely bronze-green ; the tail with only the four central feathers brown, the next pair grey with a brown subapical band, and the four outer pairs grey with a black subapical band. Size scarcely smaller than that of *Ph. tristigma*.

Hab. Makassar, S. Celebes.

a. Ad. sk. Makassar, S. Celebes (*Wallace*). Gould Coll. (Specimen figured by Gould (*l. c.*). Type of species.)

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* The tail is imperfect in the specimen described, so that it cannot be made out clearly whether two or three of the outer pairs of tail-feathers are tipped with grey.

8. Phlogœnas (?) hoedti.

Leptoptila hoedtii, *Schleg. N. T. D.* iv. p. 30 (1871) (Wetter); *id. Mus. P.-B.* Columbæ, p. 163 (1873).
Peristera hoedti, *Gieb. Thes. Orn.* iii. p. 66 (1877).

Adult male. Head and hind neck of a light grey, changing into whitish on the throat; fore part and sides of the neck and crop-region white, with a yellowish rufescent tinge on the sides; breast, abdomen, tibial feathers, and under tail-coverts of a brownish grey-black, tinged with russet; under surface of the tail slate-colour, upper surface dark grey with a subapical blackish band; mantle, back, upper tail-coverts, and upper surface of the wings of a coppery reddish, changing into violet-red with a metallic gloss on the smaller upper wing-coverts; under surface of the quills ferruginous. Wing 6 inches, tail 4·5, tarsus 1, middle toe 11·05, bill 0·85.

Female. Head, neck, crop-region, primaries except at the tip, and tail-feathers of a reddish rufous, the latter (the lateral ones ?) with a black subapical band; the remainder of the plumage of a yellowish brown, more or less rufescent. Wing 5·6 inches, tail 4·5. (*Schleg.*)

Hab. Wetter Island, to the N.E. of Timor.

This species is an aberrant one, having the first quill attenuated at the tip, like a *Leptoptila*.

9. Phlogœnas canifrons.

Phlogœnas canifrons, *Hartl. & Finsch, P. Z. S.* 1872, p. 101 (Pelew Isl.); *Finsch, Journ. Mus. Godeffr.* iv. Heft viii. p. 27, t. v. f. 1 (1875); *Schmeltz, Ethn. Abth. Mus. Godeffr.* 1881, p. 407; *Wiglesw. Aves Polynes.* p. 57, n. 291 (1891).
Phlogœnas canifrons, *Sclat. P. Z. S.* 1877, p. 112.
Phaps canifrons, *Gieb. Thes. Orn.* iii. p. 89 (1877).

Adult male. Forehead, vertex, sides of the head, throat, and sides of the neck ashy, paler on the forehead and throat, darker on the vertex, and changing on the lower throat and crop-region into a pale reddish-vinous colour; occiput, nape, and upper mantle cinnamon; remainder of the upper parts bronze-olive, with a metallic gloss in some lights; smaller upper wing-coverts purple at the tip; lower breast, abdomen, and under tail-coverts greyish brown; primaries cinnamon at the base, brown at the apical portion; under wing-coverts cinnamon, mottled with brown; tail olive rufous-brown, the lateral feathers with the tips paler rufous, and with a subapical brown band, nearly obsolete; "bill horn-black; feet red" (*Kubary*). Total length about 7·5 inches, wing 4·6, tail 2·5, bill 0·6, tarsus 1·26.

Young. The grey colour of the forehead and of the throat dull and changing into the rusty grey of the underparts; no purple-violet patch on the wing-coverts. (*Mus. Turati.*)

Hab. Pelew Islands.

a. Ad. sk.	Pelew Islands (*Cohen*).	Purchased.*

10. Phlogœnas beccarii. (Plate XI. fig. 1.)

Chalcophaps, sp., *Becc. Ann. Mus. Civ. Gen.* vii. p. 716 (Hatam) (1875).

Chalcophaps beccarii, *Salvad. Ann. Mus. Civ. Gen.* vii. p. 974 (1875) (♀), ix. p. 207, n. 79 (1876); *id. Atti R. Ac. Sc. Tor.* xiii. p. 314 (1878) (♂).

Phlogœnas beccarii, *Salvad. Orn. Pap. e Mol.* iii. p. 168 (1882).

Adult male. Forehead, sides of the head and of the neck, throat and breast grey, lighter on the lower part of the breast; vertex, occiput, nape, and all the upper parts dark olive, with a bronzy gloss; smaller upper wing-coverts with purple-violet edges; the grey of the breast surrounded by a dark brown band, tinged with purple on the sides; lower breast, abdomen, under wing-coverts, and under tail-coverts dark greyish brown; quills brown-grey, the inner secondaries like the back; central tail-feathers dark bronze-olive like the back, the lateral ones duller, with lighter tips, and with a broad subapical, almost obsolete, darker band: bill black; feet red. Total length about 7 inches, wing 4·2, tail 2·6, bill 5·5, tarsus 1·15.

Female. Upper parts bronze brown-olive; crown and nape darker;

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* The following species, which on account of its small size seems to belong to the *Ph. canifrons* group, is only known from young specimens:—

PHLOGŒNAS YAPENSIS.

Phlegœnas yapensis, *Hartl. & Finsch, P. Z. S.* 1872, p. 102 (juv.) (Uap); *Schmeltz, Ethn. Abth. Mus. Godeffr.* 1881, p. 391 (note); *Wiglesw. Aves Polyn.* p. 57, n. 293 (1891).

Phlegœnas uapensis, *Sharpe, Zool. Rec.* ix. (1872), p. 53 (1874).

Phaps yapensis, *Gieb. Thes. Orn.* iii. p. 91 (1877).

Young male. "Has the upper and lateral part of the head light rufous; the feathers of the whole back, wing-coverts, scapulars, and tertiaries are of a dark brown, with broad margins of pale rufous; a large shoulder-spot purplish violet, mixed with pale rufous; primaries of a uniform blackish brown; tail-feathers light rufous with a broad black band before the tip; the throat seems to be of a dirty rufescent colour; the feathers of the breast pale bluish grey, margined with rufous, those of the abdomen and under tail-coverts blackish, variegated with obsolete rufescent shades; under wing-coverts of an obscure mixture of black and rufous: bill yellowish, darker round the base; feet plumbeous, with pale nails. Total length 5" 4"' (French measure), tail 3" 6"', bill 7½"', tarsus 14"'."

Young female "is rather differently coloured, the back being of a dark olivaceous green, with bronze reflections; wing-coverts, tertiaries, and scapulars also more greenish, with broad rufous margins; no purplish shoulder-spots; the whole head light rufous; breast and abdomen of an indistinct olivaceous rufescent hue; under wing-coverts rufous; tail as in the elder bird. Total length 5", tail 3" 4"', bill 7"', tarsus 13½"'."

Hab. Uap, Mackenzie Islands.

forehead, sides of the head and neck, and throat dark grey; remainder of the underparts greyish brown; primaries slate-brown; secondaries, upper wing-coverts, and upper surface of the tail like the back; tail-feathers on the inner web and on the under surface slate-brown; bill brown; feet red. (*Mus. Genoa.*)

Hab. N.W. New Guinea, doubtfully Jobi.

a. Ad. sk. Jobi? Purchased.

11. Phlogœnas johannæ.

Phlegœnas stairii, *Rams.* (*nec G. R. Gr.*) *Pr. Linn. Soc. N. S. W.* i. p. 374 (1876) (Duke of York Island).

Phlogœnas johannæ, *Sclat. P. Z. S.* 1877, p. 112, pl. xvi. (Duke of York Isl.?); *Gould, B. New Guin.* pt. vii. pl. 9 (1878); *Sclat. P. Z. S.* 1879, p. 447; *Finsch, Ibis*, 1881, p. 538; *Salvad. Orn. Pap. e Mol.* iii. pp. 167, 562 (1882).

Adult male. Forehead, crown, sides of the head and neck, throat, and upper breast grey, darker on the crown and along the sides of the neck, paler on the throat, and changing into whitish grey on the lower part of the breast, which is surrounded by a brown-purple band; occiput and nape bronze olive-brown, changing into olive-bronze chestnut on the remainder of the upper parts; the wings, the upper tail-coverts, and tail with a purple gloss; smaller upper wing-coverts edged with violet-purple; quills brown, under wing-coverts and basal portion of the inner webs of the quills tinged with rusty; lower breast, abdomen, and under tail-coverts dark greyish brown with a chocolate tinge; the lateral tail-feathers greyish brown, with rufescent tips and a subapical broad dusky band: bill brown-black; feet probably red. Total length about 7·75 inches, wing 4·4, tail 2·8, bill 0·54, tarsus 1·1.

A specimen marked female by the Rev. G. Brown is similar to the male, but I suspect that it has not been properly sexed, as the females in this group differ from the male in wanting the purple patch on the smaller upper wing-coverts.

Hab. Duke of York Island.

a, b. ♂ [♀] ad. sk. [New Britain.] Tweeddale Coll. (Types of species.)

12. Phlogœnas granti. (Plate XI. fig. 2.)

Phlogœnas johannæ, *Tristr.* (*nec Sclat.*) *Ibis*, 1879, p. 444, 1882, pp. 144, 146 (Solomon Islands); *Rams. Pr. Linn. Soc. N. S. W.* vii. p. 38 (1882); *Tristr. Cat. Coll. B.* p. 41 (1889) (San Christoval).

Phlogœnas solomonensis, *Grant, P. Z. S.* 1888, pp. 186, 187, 200 (Aola, Guadalcanar) (nec *Phlogœnas salomonis*, Rams.).

Adult male. Similar to the male of *Ph. johannæ*, but larger, with the grey colour of the head, throat, sides of the neck, and breast much darker, and with the back, wings, and upper surface of the

tail of a much richer chocolate, washed with purple; the purple patch on the smaller wing-coverts darker and more violet: "bill black; legs carmine; iris brown" (*Woodford*). Total length about 8·5 inches, wing 4·7, tail 2·8, bill 0·55, tarsus 1·2.

Hab. Guadalcanar, Solomon Islands.

a. ♂ ad. sk.	Aola, Guadalcanar, Aug.	C. M. Woodford, Esq. [C.]. (Type of species and of *Ph. solomonensis*, Grant.)

13. Phlogœnas stairi.

a. Synonymy for Tonga specimens.

Calœnas (Phlegœnas) stairi, *G. R. Gr. P. Z. S.* 1856, p. 7, pl. cxv. (? Samoa; probably Tonga).

Calœnas stairi, *Bp. Compt. Rend.* xliii. p. 947 (note) (1856); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 64 (1856) (Samoa?); *Sclat. Ibis*, 1859, p. 327; *G. R. Gr. Cat. B. Trop. Isl.* p. 44 (1859) (Samoa?); *Schleg. N. T. D.* iv. p. 28 (1871).

Pampusana erythroptera, part., *Bp. Compt. Rend.* xliii. pp. 947, 949 (1856).

Phlegœnas stairi, *Hartl. & Finsch, Orn. Centralpol.* p. 147 (1867) (part.); *iid. J. f. O.* 1870, pp. 121, 122, & 134 (part., Tonga); *Gräffe, ibid.* pp. 402, 409 (Tonga); *G. R. Gr. Hand-list*, ii. p. 247, n. 9447 (1870); *Finsch, J. f. O.* 1872, p. 48 (Tonga); *Nehrk. J. f. O.* 1879, p. 407?; *Wiglesw. Aves Polynes.* p. 56, n. 289 (1891).

Leptoptila stairii, *Schleg. N. T. D.* iv. p. 28 (1871); *id. Mus. P.-B.* Columbæ, p. 162 (part.) (1873).

Phlogœnas stairi, *Sclat. P. Z. S.* 1877, p. 112; *id. List Vert. An.* 8th ed. p. 462 (Fiji Isl.!) (1883).

Phaps stairei, part., *Gieb. Thes. Orn.* iii. p. 91 (1877).

b. Synonymy for Fiji specimens.

Peristera erythroptera, *Hartl. (nec Gm.) Ibis*, 1864, p. 232 (Feejee Islands).

Phlegœnas stairi, part., *Hartl. & Finsch, Orn. Centralpol.* p. 147 (1867) (Fiji); *iid. J. f. O.* 1870, p. 134 (part.); *E. L. Layard, P. Z. S.* 1875, pp. 151, 438 (Fiji); *id. Ibis*, 1876, p. 392 (Ovalau, Vakaia, Mokani, Vanua Levu, Taviuni, Viti Levu); *North, Pr. Linn. Soc. N. S. W.* (2) ii. p. 445 (1887) (Fiji); *Rchnw. J. f. O.* 1891, p. 127 (Fiji).

Leptoptila stairii, *Schleg. N. T. D.* iv. p. 30 (1871); *id. Mus. P.-B.* Columbæ, p. 162 (part.) (Fiji) (1873).

Phlegœnas vitiensis, *Finsch, J. f. O.* 1872, p. 50 (Fiji).

Phaps stairei, part., *Gieb. Thes. Orn.* iii. p. 91 (1877) (Viti).

Phlegœnas stairi vitiensis, *Wiglesw. Aves Polynes.* p. 56, n. 290 (1891).

Adult male. Glossy brown, with bronze and purple reflections in some lights; front, sides of the head and neck, and breast vinous rufous, changing into white round the edge of the breast-shield and on the throat; the breast-shield margined below with a dark brown-purple band; hind part of the head and back of neck dark slaty, glossed with green; smaller upper wing-coverts and

feathers on the sides of the breast margined with purple; middle of the abdomen vinous brown, the sides, the vent, and under tail-coverts chocolate-brown; quills brown; under wing-coverts and basal part of the inner webs of the quills cinnamon; tail brown, with the base of the lateral feathers dark vinous grey: "bill black; iris red-brown; legs deep crimson" (*Layard*). Total length about 11 inches, wing 6·2, tail 3·8, bill 0·7, tarsus 1·35.

Female. Head, neck, and breast dull cinnamon, brighter or deeper on the head; rest of the upper parts glossy brown-olive; abdomen and under tail-coverts dull brown, the longest of the latter with a russet tinge; quills brown; under wing-coverts partly cinnamon; a cinnamon tinge also on the inner webs of the quills; tail russet-brown, the lateral feathers more rufescent, almost cinnamon, and with a subapical brown band. Total length about 10 inches, wing 5·6, tail 3·8, bill 0·7, tarsus 1·25.

Hab. Fiji and Tonga Islands.

The type of *Ph. stairi* is a bird which lived in the Zoological Society's gardens. It is not quite certain from which of the three island-groups of Central Polynesia (Samoa, Fiji, or Tonga) it came: it appears to me more like a Fiji bird than a Samoan one, as it has the occiput dusky, almost slaty, with a greenish tinge; but it may, after all, have come from the Tonga Islands. The birds of the latter group ought to be compared with those from Samoa and those from the Fiji Islands: Dr. Finsch thinks they may prove to be specifically distinct from both.

In the present circumstances I shall unite the Tonga with the **Fiji bird, and not the Tonga with the Samoan, as Wiglesworth has done.**

a. ♂ ad. st.	[Samoa.]	Zoological Soc. Coll. (Type of species.)
b. ♂ ad. sk.	[Samoa.]	Rev. J. B. Stair [P.].
c, *d*, *e*. ♂ ♀ ad. sk.	Ovalau, Fiji, Feb., Nov., Dec. (*E. L. Layard*).	Tweeddale Coll.
f–*k*. ♂ ♀ ad. sk.	Wakaia, Fiji, May, Sept., Nov. (*E. L. Layard*).	Tweeddale Coll.
l, *m*. ♂ ad. sk.	Vanua Levu, Fiji, May (*E. L. Layard*).	Tweeddale Coll.
n. ♂ ad. sk.	N'Gila, Taviuni, Fiji, Aug. (*E. L. Layard*).	Tweeddale Coll.
o. ♂ ad. sk.	Taviuni, Fiji.	W. A. Bailward, Esq. [P.].
p. Juv. sk.	Taviuni, Fiji (*Liardet*).	Salvin-Godman Coll.
q. ♀ ad. sk.	N'Dreketti, Fiji (*E. L. Layard*).	Tweeddale Coll.

14. Phlogœnas samoensis.

Phlegœnas stairi, *Finsch & Hartl. Orn. Centralpol.* p. 147 (part., Samoa) (1867); *Whitmee, Ibis*, 1875, p. 445 (Samoa); *Tristr. Cat. Coll. B.* p. 41 (Samoa) (1889); *Wiglesw. Aves Polyn.* p. 56, n. 289 (part., Samoa) (1891).

? Leptoptila stairii, part., *Schleg. N. T. D.* iv. pp. 28, 30 (1871); *id. Mus. P.-B.* Columbæ, p. 162 (part., Samoa) (1873).
Phlegœnas samoensis, *Finsch, J. f. O.* 1872, p. 50 (Samoa).
Phlogœnas stairii, *E. L. Layard, P. Z. S.* 1876, p. 496 (Samoa).

Adult male. Similar to the male of *Ph. stairi*, but the rufous vinous breast-shield shows no whitish towards the edge below; the occiput and the nape are not of a distinct slaty dark colour with a greenish gloss, but chocolate or dusky brown.

The *female* differs from that of the allied species more than the male does, having the back and wings glossy chocolate-brown with no olive tinge, and the rufous-cinnamon colour of the head, neck, and breast much darker.

Hab. Samoa Islands.

a, *b*. ♂ ♀ ad. sk. Samoa. Rev. S. J. Whitmee [C.].*

15. Phlogœnas margaritæ.

Phlegœnas jobiensis, *Meyer, Mitth. Zool. Mus. Dresd.* i. p. 10 (1875) (young) (types examined); *Salvad. Ann. Mus. Civ. Gen.* vii. p. 974 (note) (1875); *Sharpe, Journ. Pr. Linn. Soc., Zool.* xiii. p. 319, n. 43 (1877); *Gould, B. New Guin.* vii. pl. 8 (part vii., 1878); *Sharpe, Journ. Pr. Linn. Soc., Zool.* xiv. p. 634 (1879).
Chalcophaps, sp., *Becc. Ann. Mus. Civ. Gen.* vii. p. 716 (Jobi) (1875); *Salvad. op. cit.* p. 973 (1875).
Chalcophaps margaritæ, *D'Alb. & Salvad. Ann. Mus. Civ. Gen.* vii.

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* The following species is unknown to me; from the description, I should say that it is nearly allied to *Ph. stairi*, if not the same. The locality is probably wrong:—

PHLOGŒNAS SALOMONIS.

Phlogœnas salamonis, *Rams. Pr. Linn. Soc. N. S. W.* vii. p. 299 (1882); *Salvad. Ann. Mus. Civ. Gen.* xviii. p. 429, n. 20 (1882); *id. Orn. Pap. e Mol.* iii. p. 562 (1882); *Rchnw. & Schal. J. f. O.* 1883, p. 406; *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 64 (*Agg. Orn. Pap. e Mol.* p. 190) (1891).

"Total length 11 inches, wing 6·5, tail 4, tarsus 1·3, bill from the forehead 1, from the nostril 0·5, from the angle of the mouth 1·1 inch. Bill brown; legs and feet carmine. The bill is strong and much curved at the tip; the tail rounded, of twelve feathers (?). General colour reddish chocolate-brown above, slightly tinted with rich metallic violet-purple, which becomes very bright on the wing-coverts and interscapular region; the primaries and secondaries and the inner webs of the tail-feathers and their under surfaces dull dark brown; head chocolate-colour without metallic reflections, the sides of the face lighter, the throat of a paler tint; the chest, breast, and fore neck cinnamon-brown, lightest towards the abdomen, a few feathers on the sides of the chest tinted with the same rich metallic hue as the mantle and wing-coverts; the remainder of the under surface dark, dull reddish chocolate-brown, deeper in tint and inclining to rufous on the under tail-coverts. The feathers of the breast being of a light cinnamon tint, contrast greatly with the dark chocolate-red of the remainder of the under surface." (*Ramsay.*)

Hab. San Christoval, Solomon Islands (?).

p. 836, n. 80 (1875, 21 Nov.) (ad.); *Salvad. op. cit.* ix. pp. 44, 207, n. 80 (1876); *Rams. Pr. Linn. Soc. N. S. W.* i. p. 374 (1876); *D'Alb. & Salvad. Ann. Mus. Civ. Gen.* xix. p. 146 (1879); *D'Alb. Nuova Guin.* pp. 256, 278, 281, 528, 585, 588 (1880); *Finsch, Vög. d. Südsee*, p. 19 (New Britain) (1884).

Phlogœnas margaritæ, *Salvad. Ann. Mus. Civ. Gen.* viii. p. 405 (1876); *Selat. P. Z. S.* 1877, p. 111, n. 57.

Chalcophaps jobiensis, *Salvad. Ann. Mus. Civ. Gen.* ix. p. 207, n. 81 (1876); *Rams. Pr. Linn. Soc. N. S. W.* iii. p. 294 (1878), iv. p. 101, n. 176 (1879).

Phlogœnas jobiensis, *Salvad. Orn. Pap. e Mol.* iii. pp. 165, 561 (1882); *Sharpe, Journ. Linn. Soc., Zool.* xvi. p. 446 (1882); *Finsch & Meyer, Zeitschr. f. ges. Orn.* 1886, p. 28; *Tristr. Cat. Coll. B.* p. 269 (1889); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 287 (1890); *Salvad. Ann. Mus. Civ. Gen.* (2) ix. p. 589 (1890); *id. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 63 (*Agg. Orn. Pap. e Mol.* p. 189) (1891).

Phlegœnas margarethæ, *Tristr. Cat. Coll. B.* p. 41 (1889) (Duke of York Island).

Adult male. Upper part of the head, upper hind neck, and a subocular band from the base of the lower mandible to the nape black; lores, sides of the forehead, superciliary stripe, throat, and crop-region pure white; feathers of the lower hind neck, mantle, upper back, scapulars, and upper wing-coverts brown-black, with beautiful purple edges; rump brown-black with purple reflections; upper tail-coverts almost black; lower breast, abdomen, and under tail-coverts slate-black, the feathers on the sides of the breast with **purple edges; quills, primary-coverts, and under wing-coverts brown-black; under surface of the quills slate-black; tail black:** "bill black; feet dull brown-red; iris black" (*D'Albertis*). Total length about 9·5 inches, wing 5·5.

Female. Similar to the male, but with an olive tinge on the lower back and rump; the white on the head, throat, and breast not so pure, and the black of the under surface more or less greyish.

Young. Brown, with a slight olive tinge on the back, scapulars, and rump; the edges of the upper wing-coverts rufous; throat whitish; the breast of a pale brown.

Hab. New Guinea, Jobi, the Duke of York Island, and New Britain.

a. Ad. sk.	New Guinea.	Salvin-Godman Coll.
b. Ad. sk.	Mainland, S.E. Papua, Feb. (*Dr. James*).	Gould Coll.
c. Ad. sk.	Port Moresby (*Stone*).	Sharpe Coll.
d. Imm. sk.	Port Moresby.	J. Broadbent, Esq. [C.].
e–h. Ad. et juv. sk.	S.E. New Guinea (*A. Goldie*).	Salvin-Godman Coll.
i. Ad. sk.	Astrolabe Mts. (*A. Goldie*).	Tweeddale Coll.
k, l. Ad. sk.	Astrolabe Mts.	Dr. Romilly [P.].
m. Juv. sk.	Sogeri, S.E. New Guinea, Oct.	H. O. Forbes, Esq. [C.].
n. Juv. sk.	S.E. New Guinea.	H. O. Forbes, Esq. [C.].

o. Ad. sk.	Duke of York Is. (*Rev. G. Brown*).	Tweeddale Coll.
p. ♀ juv. sk.	Duke of York Is.	Rev. G. Brown [C.].
q. Juv. sk.		Rev. G. Brown [C.].*

16. Phlogœnas kubaryi.

Phlegœnas erythroptera, part., *Bp. Consp. Av.* ii. p. 89 (1854) (Caroline I.).
Phlegœnas erythroptera, part., *Rchnb. Tauben*, i. p. 41 (1862) (Caroline I.).
Phlegœnas sp., *Finsch, Journ. Mus. Godeff.* viii. p. 131 (1875), xii. pp. 16, 17 (1876).
Phlegœnas erythroptera?, *Finsch* (*nec Gm.*), *P. Z. S.* 1877, p. 780 (Ponapé), 1880, p. 576 (Ruk); *id. Ibis*, 1881, pp. 112, 115 (Ponapé); *Tristr. Cat. Coll. B.* p. 41 (1889) (Ruk).
Phlegœnas kubaryi, *Finsch, J. f. O.* 1880, p. 292; *Rchnw. & Schal. J. f. O.* 1881, p. 75; *Wiglesw. Aves Polyn.* p. 55, n. 284.

Adult male. Anterior part of the head, a band along the sides of the occiput, throat, sides of the neck, and breast pure white; posterior part of the head, nape, and a band joining the ear-coverts with the nape dark slate-grey; mantle, back, and upper wing-coverts of a beautiful purple-violet on the edges of the feathers, which are otherwise blackish; rump and upper tail-coverts glossy blackish, with a slight wash of purple on the edges of the feathers; lower breast, abdomen, under wing-coverts, and under tail-covers slate-black; quills slate-brown; tail slate-black, the lateral feathers greyish towards the base: "bill black; iris dark brown, edge of the eyelids grey; feet dull purple" (*Kubary*). Total length about 10·5 inches, wing 6, tail 3·8, bill 0·8, tarsus 1·38.

Female. Duller, especially the purple-violet colour of the back and upper wing-coverts; rump, upper tail-coverts, and also the inner secondaries with a bronze-olive tinge.

Hab. Caroline Islands.

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* PHLOGŒNAS sp.

Phlogœnas sp. inc., *Grant, P. Z. S.* 1888, p. 201 (Aola, Guadalcanar).
Phlegœnas spec. nondum descripta, *Tristr. Cat. Coll. B.* p. 269 (Guadalcanar) (1889).
Phlogœnas sp., *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 63 (*Agg. Orn. Pap. e Mol.* p. 189) (1891).

This species is only known from young birds collected by Mr. Woodford; as remarked by Mr. Ogilvie Grant, they resemble the young of *Ph. margaritæ*, and show already some white feathers on the throat and crop-region; there is also an incipient white superciliary streak, which has escaped Mr. Ogilvie Grant's notice; the upper parts are brown-chocolate, with the edges of the feathers rusty; forehead dark grey, a rusty tinge on the anterior part of the crown. Size somewhat larger than that of *Ph. margaritæ*.

Hab. Guadalcanar, Solomon Islands.

a. ♂ juv. sk.	Guadalcanar.	E. M. Woodford [C.].

a, b. ♂ ad. sk.	Ruk Is., Carolines, July (*Dr. O. Finsch*).	Tweeddale Coll. (Types of species.)
c, d. ♂ ♀ ad. sk.	Ruk Is., Carolines, July (*T. Kubary*).	Salvin-Godman Coll.

17. Phlogœnas erythroptera. (Plate XII. fig. 2.)

Garnet-winged Pigeon, *Lath. Syn.* ii. 2, p. 624, n. 13 (Eimeo) (1783) (nec varr. β & γ).

Columba erythroptera, *Gm. S. N.* i. 2, p. 775, n. 10 (1788) (nec varr. β & γ); *Lath. Ind. Orn.* ii. p. 597, n. 15 (1790); *Bonn. Tabl. Enc. Méth.* p. 243 (1790); *Bechst. Lath. Uebers.* ii. p. 605 (1794), iv. p. 379 (1811); *Temm. & Knip, Pig.* i. fam. sec. p. 123, pl. 55 (1808–11); *Temm. Pig. et Gallin.* i. pp. 273, 473 (part.) (1813); *Vieill. N. D.* xxvi. p. 344 (part.) (1818); *Steph. Gen. Zool.* xi. p. 51 (part.) (1819); *Desm. Dict. Sc. Nat.* xl. p. 336 (part.) (1826); *Wagl. Syst. Av.* Columba, sp. 74 (part.) (1827); *Less. Tr. d'Orn.* p. 471 (part.) (1831); *id. Compl. de Buff., Ois.* viii. p. 41 (part.) (1837); *id. op. cit.* 2nd ed. p. 280 (part.) (1838); *Rchnb. J. f. O.* 1853, p. 9; *G. R. Gr. P. Z. S.* 1856, p. 6; *Schleg. N. T. D.* iv. p. 28 (1871)*.

Peristera erythroptera, part., *G. R. Gr. List Gallinæ Brit. Mus.* p. 16 (1844); *id. Gen. B.* ii. p. 476, n. 7 (part.?) (1845); *Hartl. Wiegm. Arch.* 1852, p. 134 (part.); *id. J. f. O.* 1854, p. 169.

Columba leucophrys, *R. Forst. MS.*; *G. Forst. Icon. ined.* 136 (Taheiti); *Wagl. Isis*, 1829, p. 743 (Otaheitee); *Forst. (ed. Licht.) Descr. An.* p. 168 (1844); *G. R. Gr. P. Z. S.* 1856, p. 7; *Schleg. N. T. D.* iv. p. 28 (1871).

Tympanistria erythroptera, *Rchnb. Av. Syst. Nat.* p. xxv, t. 257 *b.* f. 3383 (1852).

Phlegœnas erythroptera, part., *Bp. Consp. Av.* ii. p. 89 (1854); *id. Compt. Rend.* xl. pp. 206, 221, 266 (part.) (1855); *id. Coup d'œil Ordre Pig.* pp. 45, 59, n. 266 (part.) (1853).

Calœnas erythroptera, part., *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 64 (1856); *id. Cat. B. Trop. Isl.* p. 44 (part.) (1859).

Pampusana erythroptera, part., *Bp. Compt. Rend.* xliii. p. 947 (1856).

Phlegœnas erythroptera, part., *Rchnb. Tauben*, i. p. 41 (part.) t. 257 *b.* f. 3383 (1862); *G. R. Gr. Hand-list*, ii. p. 247, n. 9446 (1870); *Hartl. & Finsch, J. f. O.* 1870, p. 134 (Tahiti); *Wiglesw. Aves Polyn.* p. 55, n. 280 (1891).

Phlogœnas erythroptera, *Sclat. P. Z. S.* 1877, p. 112.

Phaps erythroptera, part., *Gieb. Thes. Orn.* iii. p. 89 (1877).

"Length nine inches and a half. Bill three quarters of an inch, and of a dusky yellow (!), in some specimens black; the forehead white; from thence passes a streak of the same over each eye almost to the hind neck, which, as well as the nape, is black; the lower part of the neck behind, the shoulders, and wing-coverts are of a beautiful deep garnet-colour; the back between the wings, the quills, tail, lower part of the breast, belly, and vent are

* Specimen purchased by Temminck from Bullock: perhaps one of the types described by Latham.

all black; the tail is two inches and a half long, and even at the end; the base half of a greyish ash-colour, the end half black; the under part plain dusky; the legs brown." (*Latham.*)

Hab. Eimeo, Society Islands.

Forster's Icon. ined. 136 certainly represents an adult specimen of *Ph. erythroptera*, and it is exactly like the bird figured by Knip and Temminck.

The bird in the British Museum is so very similar to the one described by Latham and Forster, that although marked as from Bow Island, one of the Paumotu group, I am obliged to refer it to *Ph. erythroptera*. I may mention that it has the hind part of the head and the nape slate or greyish black.

a. Ad. sk. Bow Island (?). Capt. Sir E. Belcher [C.].*

18. **Phlogœnas albicollis.** (Plate XII. fig. 1.)

Peristera erythroptera, part., *G. R. Gr.* (*nec Gm.*) *List Gallinæ B. M.* p. 16 (1844) (Bow Island); *Hartl. Wiegm. Arch.* 1852, p. 135 (Bow Island); *id. J. f. O.* 1854, p. 170 (Paumotu).

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* PHLOGŒNAS sp.

Garnet-winged Pigeon, var. from Otaheite, *Lath. Syn.* ii. 2, p. 624, n. 13 (1783).

Columba erythroptera, var. *β*, *Gm. S. N.* i. 2, p. 775, n. 10 (1788) (Tahiti); *Lath. Ind. Orn.* iii. p. 598 (1790) (Otaheite); *Bechst. Lath. Uebers.* ii. p. 605, var. A (1794), iv. p. 379, var. *a* (1811).

Columba erythroptera, part., *Temm. & Knip, Pig.* i. fam. sec. p. 123 (1801–11); *Temm. Pig. et Gallin.* i. pp. 273, 473 (part.) (1813); *Vieill. N. D.* xxvi. p. 344 (part.) (1818); *Steph. Gen. Zool.* xi. p. 57 (part.) (1819); *Desm. Dict. Sc. Nat.* xl. p. 336 (part.) (1826); *Wagl. Syst. Av.* Columba, sp. 74 (av. jun.?) (1827); *Less. Tr. d'Orn.* p. 471 (part.) (1831); *id. Compl. de Buff., Ois.* viii. p. 41 (part.) (1837); *id. op. cit.* 2nd ed. p. 280 (part.) (1838).

Columba erythroptera, var. *a*, *Bonn. Tabl. Enc. Méth.* i. p. 243 (1790).

Peristera erythroptera, part., *G. R. Gr. List Gallinæ B. M.* p. 16 (1844); *Hartl. Wiegm. Arch.* 1852, p. 134 (part.).

Phlegœnas erythroptera, part., *Bp. Consp. Av.* ii. p. 89 (1854); *id. Compt. Rend.* xl. pp. 206, 222, n. 266 (part.) (1855); *id. Coup d'œil Ordre Pig.* pp. 45, 59, n. 266 (part.) (1855).

Calœnas erythroptera, var., *G. R. Gr. Cat. B. Trop. Isl.* p. 44 (1859) (Otaheite, Society Isl.).

Phlegœnas erythroptera, part., *Rchnb. Tauben*, i. p. 41 (1862); *G. R. Gr. Hand-list*, ii. p. 247, n. 9446, var. *β* (1870).

? Leptoptila erythroptera, *Schleg. N. T. D.* iv. pp. 28, 29 (1871); *id. Mus. P.-B.* Columbæ, p. 162 (1873) (Otaheite).

Phlegœnas leucophrys, *Wiglesw. Av. Polyn.* p. 55, n. 281 (1891).

This bird, which seems to be similar to *Ph. erythroptera*, is only known from Latham's account:—"With the above (Garnet-winged Pigeon), at Sir Joseph Banks's, is another, which no doubt differed in sex or age only; it is about an inch longer, the forehead, throat, fore part of the neck, and breast white; hind part of the neck dusky; *over the eye a ferruginous streak*, passing a little downwards on each side of the neck; back dusky black; belly dusky; shoulders and wing-coverts as in the other; quills and tail blackish."

Hab. Otaheite, Society Islands.

Calœnas erythroptera, *G. R. Gr.* (*nec Gm.*) *List B. Brit. Mus.* Columbæ, p. 64 (1856) (Bow Island); *id. Cat. B. Trop. Isl.* p. 44 (part.) (1859) (Bow I., Low Islands).
Phlegœnas erythroptera, part., *Rchnb. Tauben*, i. p. 41 (1862) (Bow Island); *G. R. Gr. Hand-list*, ii. p. 247, n. 9446 (part.) (1870).
Columba erythroptera (part.), *Schleg. N. T. D.* iv. p. 28 (1871) (Bow I.).
Phlegœnas sp., *Wiglesw. Aves Polyn.* p. 55, n. 286 (1891).

Adult. Head, neck, and breast white; the feathers of the occiput are worn out and show the dusky bases; upper mantle, scapulars, and upper wing-coverts brown, with chestnut-purple edges; back, rump, and upper tail-coverts brown, with a greyish tinge on the edges of the feathers; the lower edge of the white breast-shield is surrounded with a dark brown band, which on the sides of the breast is tinged with purple; abdomen, under tail-coverts, and under wing-coverts dark brown; quills underneath greyish brown; tail dull grey, with the apical portion blackish: bill black; feet dark, probably in the living bird dull crimson. Total length about 9·5 inches, wing 5·8, tail 3·6, bill 0·68, tarsus 1·25.

Hab. Bow Island.

a. Ad. sk.	Bow Island.	Capt. Sir E. Belcher, Voyage of the 'Sulphur.' (Type of species.)

19. Phlogœnas pampusan.

Colombe rousseau, *Temm. Pl. Col.* 190 (juv.) (livr. 32, 1823).
Columba xanthonura, "*Cuv.*," *Temm. Pl. Col.* 190 (livr. 32, 1823) (Mariannes Isl.); *Steph. Gen. Zool.* xiv. p. 288 (1826); *Less. Compl. de Buff., Ois.* viii. p. 44 (1837); *id. op. cit.* 2nd ed. p. 281 (1838); *G. R. Gr. Gen. B.* ii. p. 470, n. 30 (1845); *Rchnb. Syn. Av.* ff. 1269–70 (1847).
Colombe erythroptère à gorge blanche, *Quoy & Gaim. Voy. Uran., Zool.* p. 35 (1824).
Colombe de couleur rousse, *Quoy & Gaim. Voy. Uran., Zool.* p. 35 (1824).
Columba pampusan, *Quoy & Gaim. Voy. Uran., Zool.* p. 121, pl. 30 (1824); *Desm. Dict. Sc. Nat.* xl. p. 345 (1826); *Wagl. Syst. Av.* Columba, sp. 82 (1827); *Less. Tr. d'Orn.* p. 471 (1831); *id. Compl. de Buff., Ois.* viii. p. 43 (1837); *id. op. cit.* 2nd ed. p. 280 (1838); *Hartl. J. f. O.* 1854, p. 167 (Marianne Islands).
Columba xanthura, *Cuv.* (*nec Forst.*) *Règn. An.* 2nd ed. i. p. 491 (1829); *Temm. Tabl. Méth. Pl. Col.* p. 81 (1839); *Prév. & Knip, Pig.* ii. p. 45, pl. 23 (1838–43); *Schleg. N. T. D.* iv. p. 29 (1871).
Pampusana xanthura, *Bp. Consp. Av.* ii. p. 89 (1854); *id. Compt. Rend.* xl. pp. 207, 221, n. 267 (1855); *id. Coup d'œil Ordre Pig.* pp. 45, 59, n. 267 (1855); *Rchnb. Tauben*, i. p. 39, t. 226. fig. 1270 (1862).
Pampusana rousseau, *Bp. Consp. Av.* ii. p. 89 (1854) (Marquesas I.!); *id. Compt. Rend.* xl. pp. 207, 222, n. 268 (1855), *id. Coup d'œil Ordre Pig.* pp. 46, 59, n. 268 (1855); *Rchnb. Tauben*, i. p. 39, t. 226. f. 1269 (1862).
Pampusana erythroptera, part., *Bp. Compt. Rend.* xliii. p. 947 (1857).

Columba erythroptera, *Hartl.* (*nec Gm.*) *J. f. O.* 1854, p. 167 (Marianne Islands).
Peristera erythroptera, part., *Cass. Un. St. Expl. Exped., Birds,* p. 277 (1858).
Calœnas erythroptera, var., *G. R. Gr. Cat. B. Trop. Isl.* p. 44 (1859) (Guam, Ladrone or Marian Islands); *id. Hand-list,* ii. p. 246, n. 9446 (var.) (1870) (Marian Islands).
Calœnas (Pampusana) xanthura, *G. R. Gr. Cat. B. Trop. Isl.* p. 45 (1859) (Guam, Ladrone, or Marian Islands).
Calœnas (Pampusana) rousseau, *G. R. Gr. Cat. B. Trop. Isl.* p. 45 (1859) (Marquesas I.!).
Phlegœnas erythroptera, part., *Rchnb. Tauben,* i. p. 41 (1862) (Marianne Isl.); *Oust.* (*nec Gm.*) *Le Natural.* 1869, p. 261 (Mariannes).
Pampusanna xanthura, *G. R. Gr. Hand-list,* ii. p. 247, n. 9449 (1870) (Marian I.).
Pampusanna rousseau, *G. R. Gr. Hand-list,* ii. p. 247, n. 9450 (1870) (Marquesas!).
Columba rousseau, *Schleg. N. T. D.* iv. p. 29 (1871).
Leptoptila pampusan, *Schleg. N. T. D.* iv. p. 30 (1871); *id. Mus. P.-B.* Columbæ, p. 162 (1873) (Marianne Isl.).
Phaps erythroptera, part., *Gieb. Thes. Orn.* iii. p. 89 (1877).
Phaps xanthura, *Gieb. Thes. Orn.* iii. p. 91 (1877).
Phlegœnas pampusan, *Wiglesw. Av. Polynes.* p. 55, n. 283 (1891).

Adult male. Forehead, anterior part of the cheeks, fore neck, and crop-region dull white, tinged with pale buff; crown, occiput, and hind neck rusty rufous, remainder of the upper parts dark bronze-olive; the feathers of the mantle and the smaller and greater upper wing-coverts broadly margined with purple-violet; quills brown; breast, abdomen, and under tail-coverts brown-black; central tail-feathers brown, the lateral ones grey, with a broad subterminal dusky brown band: bill dusky; feet yellow(?) in the dry skin. Total length 10·5 inches, wing 5·8, tail 3·25, bill 0·8, tarsus 1·25. (*Mus. Paris.*)

Immature male specimens have the crown, occiput, and hind neck dusky. Some specimens have the forehead, upper part of the head, and hind neck dusky brown, with a few whitish feathers on the forehead; the white of the feathers of the fore neck and crop-region less pure and dirty. (*Mus. Paris.*)

Female (type of *C. pampusan*). Rufous brown with an olive lustre on the back; upper part of the head cinnamon; the upper wing-coverts with rufous edges; quills brown edged with rufous, the inner webs cinnamon towards the base; tail rufous, with a broad subapical black band on the lateral feathers, while the central ones are uniform; size somewhat less than that of the adult male. (*Mus. Paris.*)

A curious individual variety has the base of the primaries *white.* (*Mus. Paris.*)

The Paris Museum possesses a very large series of specimens showing every stage from youth (*C. pampusan*) to the fully adult bird described above.

Hab. Marianne or Ladrone Islands.

20. Phlogœnas virgo.

Phlegœnas virgo, *Rchnw. J. f. O.* 1885, p. 110 (Pelew Is.); *Wiglesw. Aves Polynes.* p. 57, n. 292 (1891).

"Head, neck, and crop-region white; crown, occiput, and nape tinged with fulvous brown; back and wings glossy violet-brown, the violet colour more conspicuous on the wings, while the back is duller with a coppery-brownish tinge; quills brown-black; tail-feathers slate-grey, with a subapical blacker band and with the tips paler; underparts grey black. Total length about 11·75 inches, wing 5·9, tail 4·1, bill 0·78, tarsus 1·2.

"Nearly allied to *P. erythroptera*, but it is easily distinguished by the rusty isabelline colour of the crown, occiput, and hind neck." (*Translation.*)

Hab. Pelew Islands.

This bird seems very similar to *Ph. pampusan*, with which it must be compared.

The following species are still unidentified:—

1. Phlogœnas pectoralis.

Peristera pectoralis, *Peale, Un. St. Expl. Exped., Birds*, p. 205, pl. 59 (1848) (Carlshoff I., Paumotu Islands); *Hartl. Wiegm. Archiv*, 1852, pp. 116, 135; *id. J. f. O.* 1854, p. 170; *Bp. Consp. Av.* ii. p. 89 (1854); *id. Compt. Rend.* xl. p. 207 (1855); *id. Coup d'œil Ordre Pig.* p. 45 (1855); *G. R. Gr. Cat. B. Trop. Isl.* p. 44 (1859); *Schleg. N. T. D.* iv. p. 28 (1871).

Phlegœnas pectoralis, *Bp. Compt. Rend.* xl. p. 221, n. (?) (1855); *id. Coup d'œil Ordre Pig.* p. 59, n. (?) (1855); *Rchnb. Tauben*, i. p. 41 (1862); *Hartl. & Finsch, J. f. O.* 1870, p. 134 (Paumotu I.); *Wiglesw. Aves Polynes.* p. 56, n. 287 (1891).

Peristera erythroptera, part., *Cass. Un. St. Expl. Exped., Ornith.* p. 277 (1858); *Sclat. Ibis*, 1859, p. 327 *.

Phlegœnas erythroptera, *Rchnb. (nec Gm.) Tauben*, ii. p. 166 (1862).

Phlegœnas erythroptera, var., *G. R. Gr. Hand-list*, ii. p. 247, n. 9446 (var.) (1870).

Leptoptila erythroptera, part., *Schleg. Mus. P.-B.* Columbæ, p. 162 (1873).

Female. "Body robust; head, neck, and breast fulvous, palest on the forehead; nape dark purple; scapulars dark olive-green having a golden iridescence; wings, body, and tail sepia-brown, inclining to dark grey on the upper surfaces of tail-feathers and quills; quill-feathers arcuate, the third one longest; shafts brown; tail rounded, consisting of twelve feathers (?), and extending one inch beyond the closed wings; claws short, nearly straight, and black; irides reddish brown; feet and legs large, of a reddish brown; bill black. Total length 8·5 inches, tail 4·5, bill (about) 0·55." (*Peale.*)

Hab. Carlshoff, Paumotu Islands.

2. Phlogœnas sp.

Columba pectoralis, *Ellis's Icon. ined.* 71 (York Island, or Eimeo or Imaio); *Wiglesw. Aves Polynes.* p. 56 (1891).

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* Sclater mentions a species from New Caledonia!

Columba erythroptera, part., *G. R. Gr. P. Z. S.* 1856, p. 6 (York Island or Eimeo).
Calœnas erythroptera, var., *G. R. Gr. Cat. B. Trop. Isl.* p. 44 (1859).
Phlegœnas erythroptera, var., *G. R. Gr. Hand-list*, ii. p. 247, n. 9446 (1870).

Ellis's Icon. ined. 71, in the British Museum, represents a bird similar to *Ph. erythroptera* on the upper parts, and with the forehead and the eyebrows white as in that species, but it has the underparts *entirely white*. If such a bird really exists, it no doubt belongs to a distinct species.

3. PHLOGŒNAS sp.

Garnet-winged Pigeon, var. from Tanna, *Lath. Gen. Syn.* ii. p. 625 (1783).
Columba erythroptera, var. γ, *Gm. S. N.* i. 2, p. 775 (1788); *Lath. Ind. Orn.* ii. p. 598 (1790).
Columba erythroptera, var. *b*, *Bonn. Tabl. Enc. Méth.* i. p. 244 (1790); *Bechst. Lath. Uebers.* iv. p. 379 (1811).
Columba erythroptera, var. B, *Bechst. Lath. Uebers.* ii. p. 606 (1794).
Columba erythroptera, part., *Temm. Pig.* i. fam. sec. p. 123 (1808–11); *id. Pig. et Gallin.* i. pp. 273, 473 (part.) (1813); *Vieill. N. D.* xxvi. p. 344 (part.) (1818); *Steph. Gen. Zool.* xi. p. 57 (part.) (1819); *Desm. Dict. Sc. Nat.* xl. p. 336 (part.) (1826); *Wagl. Syst. Av.* Columba, sp. 74 (part.) (1827); *Less. Compl. de Buff., Ois.* viii. p. 41 (part.) (1837); *id. op. cit.* 2nd ed. p. 280 (part.) (1838); *Schleg. N. T. D.* iv. p. 28 (1871).
Calœnas ferruginea, part., *G. R. Gr. Cat. B. Trop. Isl.* p. 45 (1859) (Tanna, New Hebrides).
Phlegœnas ferruginea, *G. R. Gr. Hand-list*, ii. p. 247, n. 9448 (1870) (syn. emend.).
Phlegœnas —— ?, *Wiglesw. Aves Polyn.* p. 55, n. 282.

All we know about this bird is contained in the following paragraph by Latham:—"In the same collection [of Sir Joseph Banks] I find also one [Pigeon] which came from the Island of Tanna, and seems between both the above (Garnet-winged Pigeon from Tanna and var. from Otaheite); for it has the white streak over the eye of the first, and the fore part to the breast white as the last; the forehead, sides of the head, and fore part of the neck are also white; legs deep dull crimson; belly and back reddish black; tail rounded."
Hab. Tanna, New Hebrides.
Possibly the adult or male of the following species.

4. PHLOGŒNAS FERRUGINEA.

Columba ferruginea, *G. Forster* (*nec Wagl.*), *Icon. ined.* 142; *Forster, Descr. An.* (*ed. Licht.*) p. 265 (1844) (Tanna).
Columba curvirostra, *Licht.* (*nec Gm.*) *l. c.* note (1844).
Treron fulvicollis, part., *G. R. Gr. Gen. B.* App. p. 23 (1849).
Osmotreron fulvicollis, part., *Bp. Consp. Av.* ii. p. 14 (1854) (Tanna).
Calœnas ferruginea, *G. R. Gr. Cat. B. Trop. Isl.* p. 45 (1859) (syn. emend.); *Layard, Ibis*, 1878, pp. 276, 280 (New Hebrides); *Rams. Pr. Linn. Soc. N. S. W.* iii. p. 339 (1879) (Havannah Harbour).
Phlegœnas ferruginea, *G. R. Gr. Hand-list*, ii. p. 247, n. 9448 (1870); *Wiglesw. Aves Polynes.* p. 56, n. 288 (syn. emend.) (1891).

"Columba brachyura .... Corpus magnitudine, statura, habitu proximum *Columba leucophri*, verum paulo maior .... irides flavescentes. Palpebræ nudiusculæ, cœrulescentes. Pedes sanguinei (ut in *C. leucophri*). Caput, collum, pectus ferruginea. Dorsum et uropygium fusco-purpurea s. badia. Abdomen et crissum cinereo-grisea. Remiges primores fuscæ, margine exteriore tenuissimo pallido; reliqua alæ viridi-fusca; subtus saturate cinereæ. Cauda æqualis. Rectrices 10 (!), fusco-ferrugineæ." (*Forster.*)
Hab. The island of Tanna, N. Hebrides.

This species is only known from Forster's drawing and description. It appears to be very similar to the females of *Ph. stairi* and *Ph. samoensis*, and probably it is only the female of the bird, also from Tanna, described by Latham as a variety of the Garnet-winged Pigeon.

5. Phlogœnas? rubescens.

Der Kokuh, *Krusenst. Voy.* pl. 17. fig. 1 (1814) (Nukahiva, Marquesas I.) (in Russian).
Columba rubescens, *Vieill. N. D.* xxvi. p. 346 (1818) (*ex Krusenstern*); *id. Enc. Méth.* i. p. 378 (1823); *Desm. Dict. Sc. Nat.* xl. p. 371 (1826); *Wagl. Syst. Av.* Columbæ, sp. dub. 12 (1827).
Pampusana rubescens, *Bp. Consp. Av.* ii. p. 90 (1850); *id. Compt. Rend.* xl. pp. 208, 221, n. 269 (1855); *id. Coup d'œil Ordre Pig.* pp. 46, 59, n. 269 (1855); *Rchnb. Tauben*, i. p. 40 (1862).
Phlegœnas erythroptera, part., *Bp. Compt. Rend.* xliii. p. 949 (1856).
Calœnas (Pampusana) rubescens, *G. R. Gr. Cat. B. Trop. Isl.* p. 45 (1859).
Pampusanna rubescens, *G. R. Gr. Hand-list*, ii. p. 947, n. 9451 (1870).
Phaps rubescens, *Gieb. Thes. Orn.* iii. p. 90 (1877).
Phlegœnas rubescens, *Wiglesw. Aves Polynes.* p. 55, n. 285 (1891).

"Tête et cou cendrées; cette couleur est plus foncée sur l'occiput que sur les autre parties; le corps, les ailes et la queue sont d'un brun-rougeâtre; les pennes intérieures de l'aile et la base des extérieures de la queue sont blanches. Longuer totale huit pouces." (*Vieillot* ex *Krusenstern.*)
Hab. Nukahiva, Marquesas Islands.
Only known from Krusenstern's account.

6. Phlogœnas sp.

Columba pyrrhacra, *Forst. Descr. An.* (*ed. Licht.*) p. 211 (1844) (Marquesas Is.).

Undescribed.
"*Columbæ pyrrhacræ* sylvas [Marchionis Mendozæ Insularum] inhabitant" (*Forster*).
Mr. G. R. Gray (Cat. B. Trop. Isl. p. 45) has with a query referred the above synonym to *Calœnas rubescens.*

7. Phlogœnas sp.

Purple-breasted Pigeon, *Lath. Syn.* ii. 2, p. 629, n. 19 (1783) (Eimeo).
Columba eimeensis, *Gm. S. N.* i. 2, p. 784, n. 60 (1788); *Lath. Ind. Orn.* ii. p. 599, n. 21 (1790); *Bonn. Tabl. Enc. Méth.* i. p. 244 (1790); *Bechst. Lath. Uebers.* ii. p. 609 (1794), iv. p. 380 (1811); *Temm. Pig. et Gallin.* i. p. 465 (1813); *Vieill. N. D.* xxvi. p. 363 (1818); *Steph. Gen. Zool.* xi. p. 39 (1819); *Desm. Dict. Sc. Nat.* xl. p. 374 (1826); *Wagl. Syst. Av.* Columbæ, sp. dub. 3 (1827); *Schleg. N. T. D.* iv. p. 28 (1871).
? Colombe à collier pourpre, *Temm. Pig. et Gallin.* i. p. 372 (1813).
Treron ? eimensis, *G. R. Gr. Gen. B.* ii. p. 467, n. 17 (1844).
? Calœnas eimeensis, *G. R. Gr. Cat. B. Trop. Isl.* p. 44 (1844) (Eimeo).
Phlogœnas erythroptera, part., *G. R. Gr. Hand-list*, ii. p. 247, n. 9446 (1870).
Phlegœnas ferruginea, part., *Wiglesw. Aves Polynes.* p. 56, n. 288 (1891).

"Length 14 inches. Bill black; sides of the head beneath the eyes dusky; the forehead, throat, and fore part of the neck of a pale rufous or rather vinaceous colour; the crown and hind part of the neck dusky brown, with a greenish tinge on the first; sides of the neck red-brown, changing into a glossy purple or lake colour as it advances downwards, uniting on both sides to form

a bar of the same colour on the breast; the wing-coverts are of the same beautiful purple-red as the bar on the breast; the quills are dusky; above the purple bar on the breast is a transverse band of white; the belly dusky; the legs are red, an inch and a half in length; claws black." (*Latham.*)
Hab. Is. of Eimeo, Society Islands.

8. PHLOGŒNAS sp.

Pacific Pigeon, *Lath. Hist. of B.* viii. p. 45 (1823) (Tonga Islands—Mayorga or Vavao, or Vavau, or Howe's Island).
Calœnas ——?, *G. R. Gr. Cat. B. Trop. Isl.* p. 45 (1859).

"Length 18 inches. Head, neck, and breast purple; nape glossed with green; chin and throat white; the rest of the body cinnamon-colour." (*Latham.*)
Hab. Howe's Island (*General Davies*).

32. LEUCOSARCIA.

Type.
Leucosarcia, *Gould, B. Austr.* v. pl. 63 (pt. xiii., 1843) .. L. picata.

Range. Confined to Australia.

1. Leucosarcia picata.

White-faced Pigeon, *Lath. Gen. Syn. Suppl.* ii. 2, p. 268, n. 4 (1802).
Pied Pigeon, *Lath. ibid.* p. 268, n. 5 (1802).
Columba melanoleuca, *Lath. Ind. Orn. Suppl.* p. lix, n. 1 (1802) (Port Jackson); *Vieill. N. D.* xxvi. p. 355 (1818); *id. Enc. Méth.* i. p. 377 (1823); *Wagl. Syst. Av.* Columba, sp. dub. 8 (1827).
Columba picata, *Lath. Ind. Orn. Suppl.* p. lix, n. 2 (1802) (Port Jackson); *Vieill. N. D.* xxvi. p. 356 (1818); *id. Enc. Méth.* i. p. 377 (1823); *Wagl. Syst. Av.* Columba, sp. 42 (1827).
Columba armillaris, *Temm. & Knip, Pig.* i. fam. sec. p. 13, pl. 6 (1808–11); *Temm. Pig. et Gallin.* i. pp. 97, 447, with var. (1813); *Steph. Gen. Zool.* xi. p. 15, with var. 5 (1819); *Desm. Dict. Sc. Nat.* xl. pp. 319, 373 (1826); *Less. Tr. d'Orn.* p. 469 (1831); *P. Z. S.* 1834, p. 110.
Colombe Goad-gang, *Temm. Pig. et Gallin.* i. p. 369 (1813).
Columba picator (*errore*), *Steph. Gen. Zool.* xi. p. 16 (in syn. *C. armillaris*) (1819).
[Colombe] jamieson, *Quoy & Gaim. Voy. Uran., Zool.* p. 123 (note) (1824).
Columba jamiesoni, *Desm. Dict. Sc. Nat.* xl. p. 310 (1826); *Less. Compl. de Buff., Ois.* viii. p. 16 (1837); *id. op. cit.* 2nd ed. p. 273 (1838).
Phaps picata, *Selby, Nat. Libr., Pigeons*, p. 194 (1835); *G. R. Gr. Gen. B.* ii. p. 477, n. 4 (1845); *id. List B. Brit. Mus.* Columbæ, p. 62 (1856); *id. Ibis*, 1862, p. 232; *Finsch, J. f. O.* 1872, p. 87; *Gieb. Thes. Orn.* iii. p. 90 (1877); *Tristr. Cat. Coll. B.* p. 40 (1889).
Leucosarcia picata, *Gould, B. Austr.* v. pl. 63 (pt. xiii., 1843); *Rchnb. Vög. Neuholl.* sp. 425 (1850); *id. Av. Syst. Nat.* p. xxvi, tab. xxiii. (1852); *Bp. Consp. Av.* ii. p. 86 (1854); *id. Compt. Rend.* xl. pp. 206, 221, n. 257 (1855); *id. Coup d'œil Ordre Pig.* pp. 44, 59,

n. 257 (1855); *Bolle, J. f. O.* 1856, p. 166; *Zuchold, J. f. O.* 1858, p. 40; *Bennett, Gath. of a Natural. in Austral.* p. 169 (1860); *Pelz. Sitzb. k. Akad. Wissensch.* xli. p. 326 (1860); *Leycest. Ibis*, 1861, p. 172; *Rchnb. Tauben*, i. p. 44, t. 262. ff. 1457–58 (1862), ii. p. 166 (1862); *Gould, Handb. B. Austr.* ii. p. 120 (1865); *Sclat. P. Z. S.* 1869, p. 628; *Hutt. Ibis*, 1870, p. 397 (N. Zealand, introduced); *G. R. Gr. Hand-list*, ii. p. 246, n. 9431 (1870); *Sundev. Tent.* p. 100 (1872); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 22 (1873); *Pelz. Ibis*, 1873, p. 35 (one of the types?); *Rams. P. Z. S.* 1876, p. 116; *id. Tr. Linn. Soc. N. S. W.* i. p. 183 (1876), ii. p. 195, n. 523 (1878); *Salv. Cat. B. Strickl. Coll.* p. 551 (1882); *Sclat. List Vert. An.* 8th ed. p. 461 (1883); *Goodchild, P. Z. S.* 1886, p. 195; *Pelz. & Lorenz, Ann. Naturh. Hofmus.* iii. p. 49 (1888); *Rams. Tab. List*, p. 18, n. 535 (1888); *North, Nests & Eggs B. Austr.* p. 272 (1889); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 286 (1893); *Hartert, Kat. Vogelsamml.* p. 189 (1891).

Phaps (Leucosarcia) picata, *Blyth, Cat. B. Mus. A. S. B.* p. 238, n. 1442 (1849).

Goura picata, *Schleg. De Dierent.* p. 208 (1864).

Leptoptila picata, *Schleg. Mus. P.-B.* Columbæ, p. 163 (1873).

Leucosarcia picta (*errore*), *Garrod, P. Z. S.* 1874, p. 253.

Adult male. Upper parts, wings, and tail lead-grey; forehead and chin white; lores black; a whitish ill-defined line under the eyes and on the upper ear-coverts; cheeks light grey, gradually passing into the dark grey lead-colour of the breast, the latter interrupted by a broad semicircular white band, which encircles the middle part of the breast; middle of the lower breast white; feathers of the sides and abdomen with triangular black spots near the extremity and broadly edged with white; under tail-coverts brown, tinged with buff, particularly on the inner web, and broadly edged with whitish; quills brown; under wing-coverts dark grey, with whitish edges; tail above like the upper parts; the three or four outer feathers tipped with white: "irides very dark brown, surrounded by a narrow pink-red lash; tip of the bill purplish black; base of the bill and the fleshy operculum covering the nostrils pink-red; legs and feet pink-red" (*Gould*). Total length about 15 inches, wing 8·4, tail 5·75, bill 0·75, tarsus 1·6.

Young. Similar to the adult, only browner on the wing, and without the dark centres to the feathers of the sides.

Hab. Eastern Australia, from Rockingham Bay, through the interior, to Victoria.

a. Ad. st.	Australia.	Zoological Society's Coll.
b. Juv. st.	Bred in confinement.	Zoological Society's Coll.
c. Ad. sk.	Australia.	A. Cunningham, Esq. [P.].
d. Ad. sk.	Australia.	Tweeddale Coll.
e, *f*, *g*. Ad. sk.	Australia (*J. T. Cockerell*).	Salvin-Godman Coll.
h. Skeleton.	Australia.	

33. EUTRYGON.

	Type.
Trugon, *G. R. Gr. Gen. B.* App. p. 24 (1849) (*ex Hombron & Jacquinot*)	E. terrestris.
Trygon, *Rchnb. Av. Syst. Nat.* p. xxvi (1852) (*nec Adanson, neque Brehm*, 1831)	E. terrestris.
Eutrygon, *Sclat. Journ. Pr. Linn. Soc.* ii. p. 168 (1858)	E. terrestris.

Range. Confined to New Guinea.

Key to the Species.

a. Upper wing-coverts dark grey ..... *terrestris*, p. 609.
b. Smaller and median upper wing-coverts slightly washed with reddish or purplish colour ..... *leucopareia*, p. 610.

1. Eutrygon terrestris.

Trugon terrestre *, *Hombr. & Jacq. Voy. Pôle Sud, Atlas, Ois.* pl. 28. f. 1 (1840) (type examined).

Trugon terrestris, *G. R. Gr. Gen. B.* App. p. 24 (1849); *Pucher. & Jacq. Voy. Pôle Sud, Zool.* iii. p. 123 (1853); *Des Murs in Chenu, Enc. Hist. Nat., Ois.* vi. p. 58 (1853?); *Bp. Consp. Av.* ii. p. 86 (1854); *id. Compt. Rend.* xl. pp. 206, 221, n. 256 (1855); *id. Coup d'œil Ordre Pig.* pp. 49, 59, n. 256 (1855); *G. R. Gr. List Gen. & Subgen. B.* p. 101 (1855); *id. P. Z. S.* 1858, p. 196; *id. Cat. B. New Guin.* p. 48 (1859); *id. P. Z. S.* 1861, p. 437; *Rchnb. Tauben*, i. p. 45, n. 97 (1862); *Rosenb. N. T. N. I.* xxv. p. 250, n. 239 (1863); *id. J. f. O.* 1864, p. 133, n. 239; *Finsch, Neu-Guin.* p. 179 (1865); *Wall. Ibis*, 1865, pp. 369, 392, n. 102; *id. J. f. O.* 1866, pp. 263, 283, n. 102; *id. Malay. Archip.* ii. p. 430 (1869); *G. R. Gr. Hand-list*, ii. p. 245, n. 9425 (1870).

Trugon terrestre, *Rchnb. Syn. Av.* Columbariæ, *Novit.* t. 259. f. 2598 (1851).

Trygon terrestris, *Rchnb. Av. Syst. Nat.* p. xxvi (1852); *Hartl. J. f. O.* 1854, p. 166; *Sundev. Meth. nat. Av. disp. Tent.* p. 100 (1872); *Becc. Ann. Mus. Civ. Gen.* vii. p. 715 (1875).

Starnænas terrestris, *Aliq. fide Bp. Consp. Av.* ii. p. 86 (1854).

Eutrygon terrestris, *Sclat. Journ. Pr. Linn. Soc.* ii. p. 168, n. 151 (1858); *id. P. Z. S.* 1873, p. 697; *Salvad. Ann. Mus. Civ. Gen.* vii. p. 791 (1875), ix. p. 207, n. 83 (1876), x. p. 161 (1877); *D'Alb. & Salvad. Ann. Mus. Civ. Gen.* xiv. p. 124 (1879); *D'Alb. Nuova Guin.* pp. 459, 528, 582, 588 (1880); *Salvad. Orn. Pap. e Mol.* iii. p. 186 (1882); *Guillem. P. Z. S.* 1885, p. 662; *Tristr. Cat. Coll. B.* p. 40 (1889); *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 65 (*Agg. Orn. Pap. e Mol.* p. 191) (1891).

Starnœnas terrestris, *Schleg. Mus. P.-B.* Columbæ, p. 166 (1873); *Rosenb. Malay. Archip.* p. 396 (1878).

Phaps terrestris, *Gieb. Thes. Orn.* ii. p. 151 (1875), iii. p. 91 (1877).

Adult male. Head, neck, upper back, and breast bluish lead-colour, paler on the forehead and chin; anterior frontal feathers tinged with pale brown; cheeks and ear-coverts whitish grey;

* French, and not a Latin name.

feathers on the sides and hind neck short and blackish; lower back, rump, upper tail-coverts, wings, and tail dark grey, tinged with olive on the wing-coverts; middle of the abdomen whitish buff or cream-colour; sides bright rufous; under tail-coverts pale rufous; quills brown, with narrow rufous outer edges, especially towards the tip of the secondaries; under wing-coverts whitish cream-colour, tipped with brown-black, the smaller ones entirely black: bill whitish, with the base ashy; feet pale flesh-colour; iris red. Total length about 13·36 inches, wing 7·20, tail 5·5, bill 0·7, tarsus 1·6.

Female. Similar to the male.

Young. The greater wing-coverts edged with rufous.

Hab. Western New Guinea and Salawatti.

a, *b*. Ad. sk. et st.	New Guinea.	Wallace Coll.
c. Ad. sk.	New Guinea.	Tweeddale Coll.
d. ♀ ad. sk.	Karons, N.W. New Guinea, April (*L. Laglaize*).	Salvin-Godman Coll.

2. Eutrygon leucopareia.

Eutrygon terrestris, part., *Sharpe in Gould's B. New Guin.* pt. xiii. (1882); *Salvad. Orn. Pap. e Mol.* iii. p. 563 (part.) (1882).

Eutrygon leucopareia, *Meyer, Zeitschr. f. ges. Orn.* 1886, p. 29; *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 65 (*Agg. Orn. Pap. e Mol.* p. 191) (1891).

Similar to *E. terrestris*, but with the smaller and median upper wing-coverts slightly washed with reddish or purplish colour, and with the cheeks, throat, and forehead more whitish.

Hab. S.E. New Guinea.

a. Ad. sk.	Fly River (?), New Guinea.	Gould Coll.
b. Ad. sk.	Astrolabe Mountains, New Guinea, June (*A. Goldie*).	Tweeddale Coll.
c. Ad. sk.	Vicinity of Port Moresby (*A. Goldie*).	Salvin-Godman Coll.
d, *e*. Ad. sk.	S.E. New Guinea (*A. Goldie*).	Salvin-Godman Coll.

34. OTIDIPHAPS.

	Type.
Otidiphaps, *Gould, Ann. & Mag. N. H.* (4) v. p. 62 (1870)	O. nobilis.

Range. New Guinea and Fergusson Island.

Key to the Species.

a. Hind neck bronze-green	*nobilis*, p. 611.
b. Hind neck grey	*cervicalis*, p. 611.
c. Hind neck black like the head	*insularis*, p. 612.

1. Otidiphaps nobilis.

Otidiphaps nobilis, *Gould, Ann. & Mag. N. H.* (4) v. p. 62 (1870); *id. P. Z. S.* 1870, p. 4; *Sclat. P. Z. S.* 1870, p. 157; *G. R. Gr. Hand-list*, ii. p. 246, n. 9441 (1870); *Gould, B. of As.* pt. xxiii. pl. 7 (1871); *Sclat. & D'Alb. P. Z. S.* 1873, p. 559; *Sclat. P. Z. S.* 1873, p. 698; *Schleg. Mus. P.-B.* Columbæ, p. 170 (1873); *Garrod, P. Z. S.* 1874, p. 250; *Gieb. Thes. Orn.* ii. p. 776 (1875); *Becc. Ann. Mus. Civ. Gen.* vii. p. 716 (1875); *Salvad. Ann. Mus. Civ. Gen.* vii. p. 792 (1875), ix. p. 207, n. 84 (1876), x. p. 161 (1877); *Meyer, Vogel-Skelet.* t. viii. (pt. i., 1879); *Rosenb. Malay. Archip.* p. 396 (1879); *D'Alb. Nuova Guin.* pp. 80, 582 (1880); *Salvad. Orn. Pap. e Mol.* iii. p. 188 (1882); *Meyer, Sitzb. u. Abh. Ges. Isis*, 1884, Abh. i. p. 52 (nest & egg) (1883); *Guillem. P. Z. S.* 1885, p. 662; *Tristr. Cat. Coll. B.* p. 40 (1889); *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 65 (*Agg. Orn. Pap. e Mol.* p. 191) (1891).

Adult male. Head and occipital crest green-black; hind neck metallic bronze-green; back and wings purple-chestnut; mantle near the nape with golden lustre; rump purple, changing into purple-blue on the lower part; upper tail-coverts steel-blue black; lower fore neck, breast, and sides black-purple; under tail-coverts steel-blue black; middle of the abdomen greenish black; primaries and their coverts brown-black; outer webs of the secondaries chestnut; tail above black with a green lustre, underneath deep black: "bill coral-red; tarsus in front yellow, behind purple; toes black; irides red" (*D'Albertis*). Total length about 21 inches, wing 7·75, tail 8, bill 1, tarsus 2·3.

Female. Similar to the male.

Hab. Western New Guinea and Batanta.

a. Ad. sk.	New Guinea.	Gould Coll. (Type of species.)
b. ♂ ad. sk.	New Guinea.	Salvin-Godman Coll.
c. ♂ ad. sk.	Passim, New Guinea, June (*Dr. A. B. Meyer*).	Salvin-Godman Coll.

2. Otidiphaps cervicalis.

Otidiphaps nobilis, var. cervicalis, *Rams. Pr. Linn. Soc. N. S. W.* iv. p. 470 (31st December, 1879); *Sclat. & Salv. Ibis*, 1881, p. 179.

Otidiphaps cervicalis, *Rams. op. cit., errata*; *Sclat. & Salv. l. c.*; *Salvad. Orn. Pap. e Mol.* iii. pp. 190, 563 (1882); *Sharpe, Journ. Linn. Soc., Zool.* xvi. p. 447 (1882); *id. in Gould's B. New Guin.* pt. xiii. pl. 1 (1882); *Salvad. Ann. Mus. Civ. Gen.* xviii. p. 430, n. 23 (1882); *Rams. Pr. Linn. Soc. N. S. W.* viii. pp. 16, 27 (nest & egg) (1883); *Finsch & Meyer, Zeitschr. f. ges. Orn.* 1886, p. 29; *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 287 (1890); *Salvad. Ann. Mus. Civ. Gen.* (2) x. p. 826 (1891); *id. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 65 (*Agg. Orn. Pap. e Mol.* p. 191) (1891).

Otidiphaps regalis, *Salv. & Godm. Ibis*, 1880 (July), p. 364, pl. 11; *Rchnw. & Schal. J. f. O.* 1881, p. 74; *Sclat. & Salv. Ibis*, 1881, p. 178; *Tristr. Cat. Coll. B.* p. 40 (1889).

Adult male. Head and occipital crest black; nape grey; back and wings purple-chestnut; mantle near the nape with golden

lustre; lower back, rump, and upper tail-coverts dark metallic green, the bases of the feathers somewhat blue; lower fore neck dark bronze-green, changing into purple-blue on the upper breast, and then into dark bronze-green on the lower breast, abdomen, and under tail-coverts; the feathers of the latter parts have the bases more or less blue; primaries and their coverts brown-black; outer webs of the secondaries chestnut; tail above black with a green lustre, underneath deep black: "bill coral-red; feet purple, with the scales straw-yellow or orange; soles greyish green" (*Loria*). Total length about 19 inches, wing 7·4, tail 7·5, bill 1, tarsus 2·55.

Hab. S.E. New Guinea.

a. Ad. sk.	Interior of Port Moresby, S.E. New Guinea.	C. Hunstein, Esq. [C.].
b. Ad. sk.	Vicinity of Port Moresby, S.E. New Guinea (*A. Goldie*).	Salvin-Godman Coll. (Type of *O. regalis*, Salv. & Godm.)
c. Ad. sk.	Astrolabe Mountains, June (*A. Goldie*).	Tweeddale Coll.
d. Ad. sk.	Astrolabe Mountains.	Dr. Romilly [P.].
e. Ad. sk.	Goldie River.	A. Goldie, Esq. [C.].
f. Juv. sk.	Meroka, New Guinea, Nov.	H. O. Forbes, Esq. [C.].
g, *h*. Ad. sk.	S.E. New Guinea (*A. Goldie*).	Salvin-Godman Coll.

3. Otidiphaps insularis. (Plate XV.)

Otidiphaps insularis, *Salv. & Godm. P. Z. S.* 1883, p. 33; *Rchnw. & Schal. J. f. O.* 1885, p. 455; *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 65 (*Agg. Orn. Pap. e Mol.* p. 191) (1891).

Type. Head and neck blue-black: underparts black, with a greenish tinge on the upper breast and a purple one on the lower breast and abdomen; back and wings cinnamon; lower back and rump dark olive, changing into purple on the upper tail-coverts, the larger of the latter blue-black; quills and under wing-coverts brown; tail above blue-black, underneath deep black: bill coral-red; feet vinous red, with the front scales yellow. Total length 15 inches, wing 7·1, tail 6·6, bill 0·95, tarsus 2·22.

Hab. Fergusson Island.

a. Ad. sk.	Fergusson Island (*Goldie*).	Salvin-Godman Coll. (Type of species.)

35. STARNŒNAS.

	Type.
Starnœnas*, *Bp. Comp. List*, p. 41 (1838)	S. cyanocephala.
Starnænas, *G. R. Gr. Gen. B.* ii. p. 479 (1845).	
Sternœnas, *Rchnb. Syn. Av.* ii. 1145-46 (1847).	
Perdicopelia, *Van der Hoeven, Handb. d. Zool.* ed. 2, ii. p. 680 (1855)	S. cyanocephala.

Range. Cuba (and Florida Keys).

* *Starnœnas* is a compound word from the Italian *Starna*, grey partridge, and *Œnas*.

1. Starnœnas cyanocephala.

Turtur jamaicensis, *Briss. Orn.* i. p. 135, t. xiii. f. 1 (1760).

Columba cyanocephala, *Linn. S. N.* i. p. 282, n. 20 (1766); *Jacquin, Beytr.* p. 36, n. 30, t. 17 (1784); *Gm. S. N.* i. 2, p. 778, n. 20 (1788); *Lath. Ind. Orn.* ii. p. 608, n. 54 (1790); *Bonn. Tabl. Enc. Méth.* p. 235, pl. 74. f. 3 (1790); *Hayes, Portr. of rare and curious Birds*, i. pl. 4 (1794); *Temm. & Knip, Pig.* i. fam. trois. p. 8 pl. 3 (1808–13); *Temm. Pig. et Gallin.* i. pp. 390, 492 (1813); *Vieill. N. D.* xxvi. p. 397 (1818); *Desm. Dict. Sc. Nat.* xl. p. 304 (1826); *Wagl. Syst. Av.* Columba, sp. 112 (1827); *Aud. Orn. Biogr.* ii. p. 441 (1834), v. p. 557, pl. clxxii. (1839); *Less. Compl. de Buff., Ois.* viii. p. 5 (1837); *id. op. cit.* 2nd ed. p. 270 (1838); *d'Orb. in La Sagra's Hist. Nat. Cuba, Ois.* p. 174 (large ed. p. 128) (1839); *Denny, P. Z. S.* 1847, p. 39; *Sundev. K. Sv. Vet.-Ak. Handl.* 1857, p. 55, n. 281.

Columba tetraoides, *Scop. Ann. I. Hist. Nat.* n. 180 (1769); *Gm. S. N.* i. p. 772, n. 3 (1788); *Lath. Ind. Orn.* ii. p. 594, n. 4 (1790); *Bonn. Enc. Méth.* i. p. 245 (1790); *Vieill. N. D.* xxvi. p. 345 (1818); *Desm. Dict. Sc. Nat.* xl. p. 370 (1826).

Tourterelle de la Jamaïque, *D'Aubent. Pl. Enl.* 174; *Buff. Hist. Nat. Ois.* ii. p. 558 (1781).

Tetraoid Pigeon, *Lath. Syn.* ii. 2, p. 616, n. 4 (1783).

Blue-headed Turtle, *Lath. Syn.* ii. 2, p. 651, n. 45 (1783); *id. Suppl.* i. p. 100 (1787).

Colombi-perdrix à cravate noire, *Levaill. Ois. d'Afr.* vi. p. 112, pl. 281 (1808).

Goura cyanocephala, *Steph. Gen. Zool.* xi. p. 125 (1819); *Schleg. De Dierent.* p. 208 (1864).

Columba (Lophyrus) cyanocephala, *Less. Tr. d'Orn.* p. 476 (1831); *Nutt. Man.* i. (2nd ed.) p. 769 (1840).

Geophilus? cyanocephalus, *Selby, Nat. Libr., Pigeons*, p. 216, pl. 27 (1835).

Starnœnas cyanocephala, *Bp. Comp. List*, p. 41 (1838); *Aud. Syn.* p. 193 (1839); *G. R. Gr. List Gen. B.* p. 58 (1840); *Aud. B. Am.* v. p. 23, pl. cclxxxiv. (1842); *Hartl. Syst. Verz.* p. 99 (1844); *Gosse, B. Jam.* p. 324 (note) (1847); *Bp. Consp. Av.* ii. p. 69 (1854); *id. Compt. Rend.* xl. pp. 102, 220, n. 203 (1855); *id. Coup d'œil Ordre Pig.* pp. 34, 58, n. 203 (1855); *Burm. Syst. Ueb. Th. Bras., Vög.* ii. p. 308 (1856) (Venezuela, Brazil!); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 58 (1856); *Gundl. J. f. O.* 1856, p. 108 (Cuba); *Baird, B. N. Am.* p. 608 (1858); *id. List*, n. 455 (1858); *Brewer, Pr. Bost. Soc. N. H.* vii. p. 307 (1860) (Cuba); *Gundl. J. f. O.* 1861, p. 336; *Rchnb. Tauben*, i. p. 30, t. 257. f. 1431 (*ex Levaill.*), t. 260. ff. 1445–46, t. 266. ff. 2879–81 (1862); *Albrecht, J. f. O.* 1862, p. 204 (Jamaica?); *Sclat. P. Z. S.* 1865, p. 239 note; *Gundl. Rep. Fisico-Nat. Cuba*, i. p. 299 (1866); *G. R. Gr. Hand-list*, ii. p. 244, n. 9412 (1870); *Schleg. Mus. P.-B.* Columbæ, p. 166 (1873); *Sclat. & Salv. Nomencl. Av. Neotrop.* p. 134 (1873) (Cuba); *Garrod, P. Z. S.* 1873, p. 639, 1874, pp. 250, 256; *Edd. Ibis*, 1874, p. 456; *Gundl. J. f. O.* 1874, p. 291 (Cuba); *Baird, Brew. & Ridgw. Hist. N. Am. Birds*, iii. p. 395 (1874); *Coues, Check-list*, n. 377 (1874); *Ridgw. Cat.* n. 468 (1880); *Maynard, B. E. N. Am.* p. 343 (1881); *Coues, Check-list* (2nd ed.) n. 551 (1882); *Sclat. List Vert. An.* 8th ed. p. 462 (1883); *Coues, Key N. Am. Birds*, 2nd ed. p. 571, f. 393 (1884); *Cory, List B. W. Ind.* p. 24 (1885); *A. O. U. Check-list N. Am. B.* p. 182, n. 323

(1886); *Ridgw. Man. N. Am. B.* p. 217, pl. lxiv. f. 1 (1887); *Cory, Auk*, 1887, p. 120; *id. B. W. Ind.* p. 221 (1889); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 285 (1889); *Scott, Auk*, 1892, p. 124 (Jamaica?); *Cory, ibid.* pp. 271, 272 (Cuba); *Chapm. Bull. Am. Mus. N. H.* iv. p. 294 (1892) (Cuba).

Starnænas cyanocephala, *G. R. Gr. Gen. B.* ii. p. 479, n. 1 (1845).

Sternœnas cyanocephala, *Rchnb. Syn. Av.* ff. 1445–46 (1847), *Novit. Suppl.* t. 266. ff. 2879–81 (1851) (*ex Audubon*); *id. Av. Syst. Nat.* p. xxv (1852).

Perdicopelia cyanocephala, *Van der Hoeven, Handb. d. Zool.* ed. 2, ii. p. 680 (1855).

Geotrygon cyanocephala, *Gieb. Thes. Orn.* ii. p. 255 (1875).

Sturnœnas cyanocephala, *Schmidt, P. Z. S.* 1880, p. 314.

Adult male. General colour olive-brown above and dull rusty beneath, the breast with a purple tinge; the mantle and nape with no olive tinge; pileum dull blue, encircled by a black band; a broad white stripe running from chin, beneath eye, to occiput; throat and chest black, bordered below by a semicircular narrow band of pure white, edged with black; the upper and lateral portions of the black area tipped with blue: "bill coral-red at the base, blue-grey at the tip; legs dull reddish white, with the scales bright carmine-red, those of the toes dark bluish red; the skin at the joint of the toes to the tarsus sky-blue; iris dark brown" (*Gundlach*). Total length 12·50–10·75 inches, wing 5·7–5·4, tail 4·25–4·00, bill 0·55, tarsus 1·25.

Hab. Cuba (and Florida Keys).

a. Ad. st.	Cuba.	Purchased.
b. Ad. sk.	W. Indies (*Zool. Soc. Gard.*).	Salvin-Godman Coll.
c. Skeleton.		
d. Skeleton.		Salvin-Godman Coll.
e, *f*. Skeletons.		Purchased.
g. Skull.		Dr. Günther's Coll.

Subfamily VII. CALŒNADINÆ.

36. CALŒNAS.

Type.

Geophilus, *Selby, Natural. Libr., Pigeons*, p. 214 (1835) (*nec Leach*, 1812) ..... C. nicobarica.

Calœnas, *G. R. Gr. List Gen. B.* p. 59 (1840) ..... C. nicobarica.

Phabalectryo, *Gloger, Gem. Hand- u. Hilfs. d. Naturg.* p. 367 (1842) ..... C. nicobarica.

Calænas (!), *G. R. Gr. Gen. B.* ii. p. 478 (1845).

Calœna, "*G. R. Gr.*," *Agass. Nomencl. Zool., Aves*, Add. p. 4 (1846).

Calliœnas, *Agass. Nomencl. Zool. Ind. Univ.* p. 59 (1846).

Calœnas, *Rchnb. Av. Syst. Nat.* p. xxv (1852).

Range. Confined to the Malay Archipelago and the Pelew Islands.

Key to the Species.

a. General plumage metallic green, more or less with a coppery tinge ..... *nicobarica*, p. 615.
b. General plumage metallic green, but with a strong blue tinge at the tip of the feathers, especially on the upper wing-coverts..... *pelewensis*, p. 618.

1. Calœnas nicobarica.

The Nincombar Pigeon, *Alb. Nat. Hist. Birds*, iii. p. 44, pls. 47, 48 (1740); *Edw. Glean.* iii. p. 271, pl. 339 (1761); *Lath. Syn.* ii. 2, p. 642, n. 38 (1783).

Columba nicombariensis, *Briss. Orn.* i. p. 154 (1760).

Columba nicobarica, *Linn. S. N.* i. p. 283, n. 27 (1766); *Gm. S. N.* i. 2, p. 783, n. 27 (1788); *Lath. Ind. Orn.* ii. p. 605, n. 44 (1790); *Bonn. Tabl. Enc. Méth.* p. 246, pl. 80. f. 1 (1790); *Hayes, Portr. of rare and curious Birds*, ii. pl. 91 (1799); *Temm. & Knip, Pig.* i. fam. trois. p. 5, pl. 2 (1808-11); *Temm. Pig. et Gallin.* i. pp. 385, 445 (1813); *Cuv. Règn. An.* i. p. 456 (1817); *Vieill. N. D.* xxvi. p. 395, pl. G 38 (1818); *Desm. Dict. Sc. Nat.* xl. p. 303 (1826); *Less. Voy. Coq., Zool.* i. 1, p. 342 (1826); *id. Tr. d'Orn.* p. 475 (1831); *id. Compl. de Buff., Ois.* viii. p. 12 (1837); *id. op. cit.* 2nd ed. p. 272 (1838); *Temm. Pl. Col.* i. *Tabl. Méth.* p. 79 (1839); *Bennett, Wanderings*, ii. p. 65 (1834) (fide *Selby, Pigeons*, p. 222, note); *Thienem. Fortpfl.* p. 56, note (1846); *Gulliv. P. Z. S.* 1879, p. 489.

Pigeon de Nincombar, *D'Aubent. Pl. Enl.* 491; *Buff. Hist. Nat. Ois.* ii. p. 541 (1771).

Columba Nicombar, *Penn. Faunula Ind. in. Forst. Zool. Ind.* p. 41 (1781).

Colombigalline à camail, *Levaill. Ois. d'Afr.* vi. p. 102, pl. 279 (1808); *Sundev. K. Sv. Vet.-Ak. Handl.* 1857, p. 55, n. 279.

Goura nicobarica, *Steph. Gen. Zool.* xi. pt. 2, p. 122 (1819); *Ranz. Elem. Zool.* iii. pt. 1, p. 217 (1821); *Schleg. De Dierent.* p. 208 (1864).

Columba gallus, *Wagl. Syst. Av.* Columba, sp. 113 (1827).

Columba gouldiæ, *Gray & Hardw. Ill. Ind. Zool.* ii. pl. 57 (juv.) (1834); *Bp. Compt. Rend.* xxxix. p. 871 (1854); *id. Coup. d'œil Ordre Pig.* p. 3 (1855); *Bartlett, P. Z. S.* 1866, p. 79 (note).

Geophilus nicobaricus, *Selby, Natural. Libr., Pigeons*, p. 221, pl. 29 (1835); *Blyth, Calc. Journ. N. H.* i. p. 605 (1841); *Peale, U.n. St. Expl. Exped., Birds*, p. 125 (1848); *Hartl. Arch. f. Naturg.* 1852, i. p. 117; *Rams. Pr. Linn. Soc. N. S. W.* i. p. 374 (1876).

Calœnas nicobarica, *G. R. Gr. List Gen. B.* p. 59 (1840); *Blyth, J. A. S. B.* xv. p. 371 (1846); *Macgill. Narr. Voy. 'Rattlesnake,'* i. p. 244 (1852); *Hartl. J. f. O.* 1854, p. 168, n. 257; *Bp. Consp. Av.* ii. p. 95 (1854); *id. Compt. Rend.* xl. p. 221, n. 206 (1855); *Hartl. J. f. O.* 1855, p. 319; *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 63 (1856); *Schleg. Handl. Dierk.* i. p. 408 (1858); *G. R. Gr. P. Z. S.* 1858, p. 196; *id. Cat. B. Trop. Isl.* p. 44 (1859); *Blyth, Ibis*, 1859, p. 465 (Cocos I.); *Flower, P. Z. S.* 1860, pp. 333, 334, pl. 166. ff. 3, 4 (anatomy of the gizzard); *G. R. Gr. P. Z. S.* 1861, p. 438; *Bennett, P. Z. S.* 1863, p. 372; *Blyth in Mouat's Advent. etc.* p. 362 (1863); *Rosenb. N. T. N. I.* xxv. p. 250, n. 243 (1863); *id. J. f. O.* 1864, p. 133, n. 243; *Sclat. P. Z. S.* 1864, p. 139;

Finsch, Neu-Guin. p. 179 (1865); *Pelz. Novara Reis., Vög.* p. 110 (1865); *Wall. Ibis*, 1865, pp. 370, 394, 400; *id. J. f. O.* 1866, p. 284; *Mart. J. f. O.* 1866, p. 25; *Bartlett, P. Z. S.* 1866, p. 78 (nesting in confinement); *Rosenb. Reis naar Zuidoostereil.* pp. 81, 82 (1867); *Sclat. P. Z. S.* 1869, p. 628; *G. R. Gr. Hand-list*, ii. p. 246, n. 9439 (1870); *Ball, J. A. S. B.* xxxix. 2, p. 32 (1870); *Gieb. Thes. Orn.* i. p. 545 (1872); *Wald. Trans. Zool. Soc.* viii. p. 86, n. 133 (1872); *Pelz. Ibis*, 1873, p. 35; *Ball, Str. Feath.* i. p. 81 (1873); *Garrod, P. Z. S.* 1873, pp. 468, 639; *Elwes, P. Z. S.* 1873, p. 663; *Sousa, Mus. Nac. Lisb.* Columbæ, p. 24, n. 144 (1873); *Garrod, P. Z. S.* 1874, pp. 250, 257; *Hume, Str. Feath.* ii. pp. 133, 271, 481 (1874); *Wald. Tr. Zool. Soc.* ix. p. 222, n. 151 (1875); *Sharpe, P. Z. S.* 1875, p. 110; *Rosenb. Reist. naar Geelvinkb.* pp. 8, 4, 117 (1875); *Salvad. Ann. Mus. Civ. Gen.* vii. p. 792 (1875); *Sclat. P. Z. S.* 1876, p. 460; *Salvad. Ann. Mus. Civ. Gen.* ix. p. 208, n. 90 (1876), x. p. 162 (1877); *Sclat. P. Z. S.* 1877, p. 112, 1878, p. 289; *Rams. Pr. Linn. Soc. N. S. W.* iii. p. 295 (1878), iv. p. 101, n. 179 (1879); *Finsch, P. Z. S.* 1879, p. 14; *Rosenb. Malay. Archip.* pp. 323, 372, 396, 407, 561 (1879); *Salvad. Ann. Mus. Civ. Gen.* xiv. p. 664 (1879); *Tiraut, Bull. Com. Agr. et Ind. Cochinch.* (3) i. p. 143, n. 258 (Poulo-Condore, Phũ Quoc) (1879); *D'Alb. Nuova Guin.* p. 582 (1880); *Finsch, Ibis*, 1881, p. 538; *Salvad. Orn. Pap. e Mol.* iii. p. 209 (1882); *Sharpe, Journ. Linn. Soc., Zool.* xvi. p. 446 (1882); *Sclat. List Vert. An.* 8th ed. p. 462 (1883); *Meyer, Sitzb. u. Abh. Ges. Isis*, 1884, Abh. i. p. 52 (Siao, Sangi); *Guillem. P. Z. S.* 1885, pp. 576, 663; *Grant, P. Z. S.* 1887, p. 332; *Woodf. P. Z. S.* 1888, p. 248; *Tristr. Ibis*, 1889, p. 558; *id. Cat. Coll. B.* p. 41 (1889); *Steere, List*, p. 24, n. 303 (Mindoro) (1890); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 287 (1890); *Hartert, J. f. O.* 1891, p. 300 (Mindoro); *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 67 (*Agg. Orn. Pap. e Mol.* p. 193) (1891); *Tristr. Ibis*, 1892, p. 297.

Calœnas nicobarica, *G. R. Gr. Gen. B.* ii. p. 478, n. 1 (1845); *Blyth, J. A. S. B.* xv. p. 371 (1846); *id. Cat. B. Mus. A. S. B.* p. 238, n. 1444 (1849); *Sclat. Journ. Pr. Linn. Soc.* ii. p. 167, n. 130 (1858); *Cass. Un. St. Expl. Exped., Birds*, p. 276 (1858); *G. R. Gr. Cat. B. New Guin.* pp. 49, 61 (1859); *id. P. Z. S.* 1860, p. 362; *De Vis, Ann. Rep. Brit. New Guin. for the years* 1890-91, p. —; *id. Ann. Queensl. Mus.* no. 2, p. 8 (1892) (Renard Island).

Calœnas gouldiæ, *G. R. Gr. Gen. B.* ii. p. 478, n. 2 (juv.) (1845).

Geophilus nicobarica, *Peale, Un. St. Expl. Exped.* viii. p. 207 (1848).

Calœnas gouldiæ, *Rchnb. Syn. Av.* t. 244. f. 2490 (juv.) (1851); *Hartl. Arch. f. Naturg.* 1852, 1, p. 134 (note); *id. J. f. O.* 1854 p. 165.

Callœnas nicobarica, *Rchnb. Av. Syst. Nat.* p. xxv (1852); *id. Tauben*, i. p. 48, t. 263. ff. 1462-68 (ad.), t. 244. f. 2490 (juv.) (1862); *Schleg. Mus. P.-B.* Columbæ, p. 170 (1873); *Vorderm. N. T. N. I.* xlviii. p. 146 (1889), l. p. 509 (1890) (Billiton).

Nicobar Pigeon, *Bartl. P. Z. S.* 1860, p. 90; *Wall. Malay. Archip.* ii. p. 65 (1869).

Calœnas nicobaricus, *Jerd. B. of Ind.* iii. p. 480 (1864); *Beav. Ibis*, 1867, p. 332; *Hume, Str. Feath.* ii. p. 70 (1874); *Blyth, B. of Burm.* p. 147, n. 524 (1875).

Calœnas gouldii, *G. R. Gr. Hand-list*, ii. p. 256, n. 9440 (juv.) (1870).

Calliœnas nicobarica, *Sund. Meth. nat. Av. disp. Tent.* p. 99 (1872).

Callænas nicobarica, *Rams. Pr. Linn. Soc. N. S. W.* vii. p. 38 (1882) (Ugi, Solomon Islands).

Adult male. Metallic green, duller on the underparts, with coppery reflections, especially on the upper parts; the feathers of the hind neck very long and narrow; head, neck, and upper breast almost black; longer upper tail-coverts, under tail-coverts, and tail pure white; primaries, outer secondaries, and primary-coverts blue-black; quills underneath brown-black: bill and knob at the base black; feet dark purple; sides of the feet and nails ochreous yellow; irides grey. Total length about 14 inches, wing 9·5, tail 3·75, bill 1, tarsus 1·7.

Female. Similar to the male, but smaller, narrow feathers of the neck shorter, and also frontal knob smaller.

Young. Like the female, but the tail greenish black.

Hab. From the Nicobars and Mergui Archipelago through the Malay Archipelago as far east as the Solomon Islands. It has not been found yet in the Timor Group.

a–m. ♂ ♀ ad. et juv. sk.	Batty Malve, Nicobars, March (*W. Davison*).	Hume Coll.
n. ♀ juv. sk.	Batty Malve, Nicobars, March (*W. Davison*).	Salvin-Godman Coll.
o. ♂ ad. sk.	Katchall Is., Nicobars, Feb.	R. J. Wimberley, Esq. [C.].
p–s. ♂ ♀ ad. sk.	Katchall Is., Nicobars, Feb. (*R. J. Wimberley*).	Tweeddale Coll.
t, u. ♂ ♀ ad. sk.	Katchall Is., Nicobars, Feb., March (*W. Davison*).	Tweeddale Coll.
v, w. ♂ ad. sk.	Katchall Is., Nicobars, Jan., Feb. (*W. Davison*).	Hume Coll.
x. ♂ ad. sk.	Treis Is., Nicobars, March (*W. Davison*).	Hume Coll.
y, z. ♂ ad. et ♀ imm. sk.	Trinkut Is., Nicobars, Jan., Feb. (*R. J. Wimberley*).	Tweeddale Coll.
a'. ♂ juv. sk.	Nancowry Is., Nicobars, Feb. (*R. J. Wimberley*).	Tweeddale Coll.
b', c'. ♂ ♀ ad. sk.	Nancowry Is., Nicobars, July (*R. G. W. R.*).	Tweeddale Coll.
d'. ♂ ad. sk.	Camorta Is., Nicobars, Dec. (*R. J. Wimberley*).	Tweeddale Coll.
e'. Juv. sk.	Billiton.	Tweeddale Coll.
f'. ♀ ad. sk.	Tiga Island.	A. Everett, Esq. [C.].
g'. Ad. sk.	Sanghir Is. (*Dr. A. B. Meyer*).	A. Everett, Esq. [C.].
h'. Ad. sk.	Sanghir Is.	Salvin-Godman Coll.
i'. Ad. sk.	E. Gilolo (*Wallace*).	Gould Coll.
k'. ♀ ad. sk.	Batchian.	Wallace Coll.
l'. Ad. sk.	Batchian.	Salvin-Godman Coll.
m'. Ad. sk.	[Aru Is.]	Salvin-Godman Coll.
n', o'. Ad. sk.	New Guinea? (*A. R. Wallace*).	Purchased.
p'. Ad. sk.	Port Moresby, New Guinea (*A. Goldie*).	Salvin-Godman Coll.
q'. Ad. sk.	Huon Gulf, April (*Dr. Comrie*).	Tweeddale Coll.
r'. ♀ ad. sk.	Duke of York Is. (*Rev. G. Brown*).	Tweeddale Coll.

s', *t'*. ♂ ♀ ad. sk.	Credner Is., Oct (*T. Kleinschmidt*).	Sharpe Coll.
u', *v'*. Ad. st.	Louisiade Archipelago (*J. McGilliviray*).	Voyage of H.M.S. 'Rattlesnake.'
w', *x'*. ♂ ad. sk.	Bramble Haven, Louisiade Archipelago.	Sir J. Ingram [P.].
y'. Ad. sk.	[Assam] (*McClelland*).	India Museum.
z'. Ad. st.	[China.]	J. R. Reeves, Esq. [P.].
a''. Juv. sk.	[China.]	J. R. Reeves, Esq. [P.]. (Type of *C. gouldiæ*, Gray.)
b''. Skeleton.		'Challenger' Exped. [C.].

2. Calœnas pelewensis.

Calœnas nicobarica, var. pelewensis, *Finsch, Journ. Mus. Godeffr.* iv. p. 159 (*Vög. d. Palau-Gruppe*, p. 27) (1875); *Pelz. & Lor. Ann. Naturh. Hofmus.* iii. p. 49 (1888).

Similar to *C. nicobarica*, but smaller, and with the general colour indigo-blue, instead of metallic green with coppery reflections; the feathers of the back, scapulars, and upper wing-coverts metallic green, with steel-blue tips; on the wing-coverts the blue predominates so much that nearly the whole of the upper surface of the wings appears of a blue colour; also the feathers of the rump and the upper tail-coverts have very broad steel-blue tips; head and neck blackish; tail white. Total length about 11 inches, wing 9, tail 3, bill 0·95, tarsus 1·55.

Hab. Pelew Islands.

a. Ad. sk.	Pelew Islands.	Cohen [C.]

Family IV. GOURIDÆ*.

1. GOURA†.

	Type.
Lophyrus, *Vieill. Analyse*, p. 49 (1816) (*nec Latreille*, 1802)	G. coronata.
Goura, *Steph. Gen. Zool.* xi. p. 119 (1819) ‡	G. coronata.
Megapelia, *Kaup, Das Thierr. system. beschr.* ii. p. 47 (1836)	G. coronata.
Ptilophyrus, *Sw. Class. B.* ii. p. 349 (1837)	G. coronata.

Range. Confined to the Papuan Islands.

Key to the Species.

a. Feathers of the crest with the webs entirely loose.
  a'. Underneath greyish blue; band across the back chestnut, like the tips of the upper wing-coverts; wing-speculum white .... *coronata*, p. 620.
  b'. Breast purple-chestnut; back greyish blue.
    a''. Smaller wing-coverts chestnut; wing-speculum white ..... *sclateri*, p. 622.
    b''. Smaller wing-coverts greyish blue.
      a'''. Larger; wing-speculum whitish grey. *albertisii*, p. 623.
      b'''. Smaller; wing-speculum darker, bluish grey ..... *scheepmakeri*, p. 623.

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* Confer Sclater (Ibis, 1868, p. 407), Sundevall (Meth. nat. Av. disp. Tent. p. 101), and Goodchild (P. Z. S. 1886, p. 193), who have expressed the opinion that the Crown-Pigeons ought to be separated from the normal Pigeons as a distinct family (Gouridæ). Sclater mentioned the very peculiar conformation of the tarsi, which are covered all over with hexagonal, nearly rounded scutellæ, and Goodchild has summarized other differences as follows:—1st, in the normal Pigeons an oil-gland is present, but is absent in *Goura*; 2nd, in the normal Pigeons the tail-feathers are 12 in number, while there are 16 in *Goura*; 3rd, in the normal Pigeons the pterylosis is Columbine, but is Galline in *Goura* (!); 4th, in the normal Pigeons cæca are present, but are absent in *Goura*; 5th, in the normal Pigeons a gall-bladder is present, no gall-bladder in *Goura*; 6th, in the normal Pigeons incubation lasts 16 days, but extends to 28 days in *Goura*.

Besides, it is worth while noticing that Huxley (P. Z. S. 1868, p. 302) found the vertebral formula of ordinary Pigeons to be:—Cervicals fourteen, dorsals five, lumbars three, sacrals and uro-sacrals ten, and free caudals six; while *Goura coronata* has cervicals fifteen or sixteen, dorsals four or three, sacrals and uro-sacrals twelve, and free caudals six.

Prof. Parker (Tr. Zool. Soc. v. p. 151) has noticed in *Goura*, as in Dodo and *Didunculus*, that the "pedicles of the embryonic skull-bone become arrested in the course of their growth."

† Some fossil remains have been described as belonging to a bird considered to be an Australian ancestor of *Goura*; and this has been named *Progura* (lege *Progoura*?) *gallinacea*, De Vis, Pr. R. Soc. Queensl. v. pp. 127–131 (1888).

‡ Stephens attributes the genus *Goura* to Temminck.

b. Feathers of the crest spatulated at the tip.
c'. Crest smaller and less abundant; feet weaker; general greyish-blue colour deeper; dorsal feathers distinctly edged ..... *victoria*, p. 624.
d'. Crest larger and fuller, and with the apical spatula broader; feet stronger; general greyish-blue colour paler, and the dorsal feathers scarcely edged ..... *beccarii*, p. 625.

1. Goura coronata.

Land Fowl, *Dampier, Voy.* iii. pt. 2, p. 83, pl. 3 (1699); ed. alt. p. 183, pl. — (1729).
Phasianus cristatus indicus, *Briss. Orn.* i. p. 279, t. 26. f. 1 (1760).
Great Crowned Indian Pigeon, *Edw. Glean.* iii. p. 269, pl. 338 (1761); *Lath. Syn.* ii. 2, p. 620 (1783).
Columba coronata, *Linn. S. N.* i. p. 282, n. 17 (1766); *Penn. Faunula Ind. in Forst. Zool. Ind.* p. 41 (1781); *Götz, Naturf.* xvii. p. 32 (1782); *Mill. Illustr.* t. 16 A (17—?); *Gm. S. N.* i. p. 774, n. 17 (1788); *Lath. Ind. Orn.* ii. p. 596, n. 9 (1790); *Bonn. Tabl. Enc. Méth.* p. 231, pl. 76. f. 2 (1790); *Hayes, Portr. of rare and curious Birds*, i. pl. 9 (1794); *Temm. & Knip, Pig.* i. fam. trois. p. 1, pl. 1 (1808–11); *Illig. Prodr. Syst. Mamm. & Av.* p. 244 (1811); *Temm. Pig. et Gallin.* i. pp. 377, 491 (1813); *Cuv. Règn. An.* i. p. 455 (1817); *Less. Voy. Coq., Zool.* i. pt. 1, p. 355 (1826) (Waigiou); *Desm. Dict. Sc. Nat.* xl. pp. 302, 451 (1826); *Wagl. Syst. Av.* Columba, sp. 111 (1827); *Cuv. Règn. An.* 2nd ed. i. p. 489 (1829); *Thienem. Fortpfl.* p. 55 (1846); *Gulliv. P. Z. S.* 1875, p. 489; *Sundev. Ibis*, 1886, p. 454.
Columba mugiens, *Scop. Ann. I. Hist. Nat.* p. 124, n. 179 (1769).
Faisan couronné des Indes, *D'Aubent. Pl. Enl.* 118; *Buff. Hist. Nat. Ois.* ii. p. 542 (1771).
Pigeon couronné, *Bougainv. Voy.* p. — (1771); *Forrest, Voy. Mol. & Nouv. Guin.* p. 86 (1780).
Crown-bird, *Bougainv. Voy.* (Engl. transl.) p. 329 (1772) (New Britain! New Ireland!).
Goura de la Nouvelle Guinée, *Sonner. Voy. Nouv. Guin.* p. 169, pl. 104 (1776); *Less. Voy. Coq. Zool.* i. pt. 2, p. 447 (1828).
Colombi-Hocco, *Levaill. Ois. d'Afr.* vi. p. 107, pl. 280 (1808).
Lophyrus coronatus, *Vieill. N. D.* xiii. p. 330 (1817); *id. Gal. des Ois.* i. p. 335, pl. 197 (1825); *Less. Man. d'Orn.* ii. p. 161 (1828); *id. Tr. d'Orn.* p. 476, pl. 80. f. 2 (1831); *Selby, Nat. Libr., Pigeons*, p. 225, pl. 30 (1835); *Less. Compl. de Buff., Ois.* viii. p. 4 (1837); *id. op. cit.* 2nd ed. p. 270 (1838); *Müll. Verh. Land- en Volkenk.* p. 22 (1839–44); *Temm. Pl. Col.* i. *Tabl. Méth.* p. 82 (1840); *Hartl. Syst. Verz.* p. 100 (1844); *id. Journ. f. Orn.* 1854, p. 257.
Goura coronata, *Steph. Gen. Zool.* xi. pt. 1, p. 120 (1819); *Ranz. Elem. Zool.* iii. pt. 1, p. 214 (1821); *G. R. Gr. Gen. B.* ii. p. 479, n. 1 (1845); *Rchnb. Syn. Av.* ff. 1473–74 (1847); *Mitch. P. Z. S.* 1849, p. 171; *Blyth, Cat. B. Mus. A. S. B.* p. 333, n. 1444 (1849); *Bp. Consp. Av.* ii. p. 96 (1854); *id. Compt. Rend.* xl. p. 221, n. 287 (1855); *id. Coup d'œil Ordre Pig.* p. 59, n. 287 (1855); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 64 (1856); *Bolle, J. f. O.* 1856, pp. 166, 168; *Sclat. Journ. Pr. Linn. Soc.* ii. p. 167, n. 129 (1858); *G. R. Gr. P. Z. S.* 1858, p. 196; *id. Cat. B. New Guin.* pp. 49, 61 (1859); ? *id. Cat. B. Trop. Isl.* p. 46 (1859) (New Britain! New Ireland!); *id. P. Z. S.* 1859, p. 159; *Sclat. P. Z. S.* 1859, p. 206;

Crisp, P. Z. S. 1860, p. 192; *G. R. Gr. P. Z. S.* 1860, p. 362, 1861, p. 438; *Rchnb. Tauben*, i. p. 49, t. 264. ff. 1473–74 (1862); *Rosenb. N. T. N. I.* xxv. p. 250, n. 244 (1863); *id. J. f. O.* 1864, p. 133, n. 244; *Sclat. P. Z. S.* 1864, p. 139; *Fraser, P. Z. S.* 1864, p. 160; *Schleg. Mus. P.-B.* Psittaci, p. 148 (1864); *id. De Dierent.* p. 208 (1864); *Finsch, Neu-Guin.* p. 179 (1865); *Sclat. P. Z. S.* 1865, p. 239; *Wall. Ibis*, 1865, pp. 395, 400; *id. J. f. O.* 1866, p. 285; *Schleg. N. T. D.* iii. p. 193 (1866); *Huxl. P. Z. S.* 1868, p. 302; *Sclat. P. Z. S.* 1869, p. 628; *Wall. Malay Archip.* ii. p. 290 (1860); *G. R. Gr. Hand-list*, ii. p. 247, n. 9452 (1870); *Schleg. Mus. P.-B.* Columbæ, p. 168 (1873); *Garrod, P. Z. S.* 1873, pp. 468, 639; *D'Alb. P. Z. S.* 1873, p. 560; *Sousa, Cat. Mus. Nac. Lisb.* Columbæ, p. 24 (1873); *Garrod, P. Z. S.* 1874, pp. 250, 256; *Gieb. Thes. Orn.* ii. p. 265 (1875); *Rosenb. Reist. naar Geelvinkb.* p. 84 (1875); *Becc. Ann. Mus. Civ. Gen.* vii. p. 716 (1875); *Salvad. Ann. Mus. Civ. Gen.* vii. p. 792 (1875), ix. p. 207, n. 85 (1876); *D'Alb. Sydn. Mail*, 1877, p. 248; *id. Ann. Mus. Civ. Gen.* x. p. 18 (1877); *Salvad. ibid.* p. 161 (1877); *Rosenb. Malay. Archip.* pp. 396, 561 (1879); *D'Alb. Nuova Guin.* pp. 13, 92, 582 (1880); *Salvad. Orn. Pap. e Mol.* iii. p. 191 (1882); *Sclat. List Vert. An.* 8th ed. p. 463 (1883); *Nehrk. J. f. O.* 1885, p. 34 (Waigiou); *Guillem. P. Z. S.* 1885, p. 662; *Meyer, Vogel-Skelet.* t. lvii. (1874); *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 66 (*Agg. Orn. Pap. e Mol.* p. 192) (1891); *Hartert, Kat. Vogelsamml.* p. 189 (1891).

Lophyrus indicus, *Steph. Gen. Zool.* xiv. p. 294, pl. 19 (1826).

Ptilophyrus coronatus, *Sw. Class. B.* ii. p. 349 (1837).

Columbus coronatus, *Fraser, P. Z. S.* 1844, p. 136.

Goura cristata (*errore*), *Bp. Compt. Rend.* xxxix. p. 872 (1854); *id. Coup d'œil Ordre Pig.* p. 3 (1855).

Megapelia coronata, *Cab.* (*fide Gieb. Thes. Orn.* ii. p. 265); *Sundev. Meth. nat. Av. disp. Tent.* p. 101 (1872); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 287 (1890).

Goura coronata minor, *Schleg. De Dierent.* p. 208 (1864); *id. N. T. D.* iii. p. 192 (1866); *G. R. Gr. Hand-list*, ii. p. 247, n. 9543 (1870); *Sousa, Cat. Mus. Nac. Lisb.*, Columbæ, p. 24 (1873); *Gieb. Thes. Orn.* ii. p. 265 (1875); *Pelz. & Lor. Ann. Naturh. Hofmus.* iii. p. 49 (1888).

Adult male. General colour bluish slate-grey; wings darker; crest uniform; chin and sides of the head from the lores to the postocular region black; a broad band across the back and tips of the upper wing-coverts dark chestnut; wing-speculum formed by the base of the central greater wing-coverts white; greater wing-coverts broadly tipped with chestnut; apical band of the tail grey, about 1·75 inch broad: bill black; tarsi red, with black scales; feet paler red; irides red. Total length 31·44–29·87 inches, wing 15·33–14·15, tail 11–10·12, bill 1·57–1·37, tarsus 3·58–3·38.

Female. Similar to the male.

Young. Smaller; chestnut colour of the back and of the wing-coverts less apparent; greater wing-coverts with smaller chestnut spots at the tip, wanting in very young birds.

Hab. Western New Guinea and the western Papuan Islands—Waigiou, Batanta, Salawatti, and Mysol.

a. Ad. st.	[China.]	J. R. Reeves, Esq. [P.].
b, *c*. Ad. et pull. st.	New Guinea.	Zool. Soc. Coll.
d, *e*. Ad. sk. et head.	New Guinea?	Gould Coll.
f. ♀ ad. sk.	Andai, New Guinea (*A. A. Bruijn*).	Salvin-Godman Coll.
g. ♂ ad. sk.	Rubi, New Guinea (*A. B. Meyer*).	Tweeddale Coll.
h. ♀ ad. sk.	Waigiou.	Wallace Coll.
i. ♀ ad. sk.	Waigiou.	
k. Juv. sk.	Mysol.	Wallace Coll.
l. Skeleton.	New Guinea.	
m. Skeleton		Salvin-Godman Coll.
n. Skeleton.		Purchased.
o. Skeleton.		Zool. Soc. Coll.

Hybrid between G. coronata *and* G. victoria.

p. ♀ ad. st.		Zool. Soc. Coll.

2. Goura sclateri.

Goura scheepmakeri, pt., *Finsch*, *P. Z. S.* 1875, p. 631 (specim. vivum in vivario Amstelodami, sed non typus).

Crown Pigeon (Goura), *D'Alb. Sydn. Morn. Herald*, 1876; *Sclat. Ibis*, 1876, p. 360.

Goura sp. inc., *D'Alb. apud Sclat. P. Z. S.* 1876, p. 414.

Goura sclateri, *Salvad. Ann. Mus. Civ. Gen.* ix. p. 45 (Fly River), p. 207, sp. 86 (1876); *D'Alb. Sydn. Mail*, 1877, p. 372; *id. Ann. Mus. Civ. Gen.* x. pp. 18, 20 (1877); *id. Ibis*, 1877, p. 372; *Salvad. Ann. Mus. Civ. Gen.* xii. p. 346 (1878); *D'Alb. & Salvad. Ann. Mus. Civ. Gen.* xiv. p. 125 (1879); *D'Alb. Nuova Guin.* pp. 310, 457, 458, 588 (1880); *Salvad. Orn. Pap. e Mol.* iii. p. 199 (1882); *id. Ibis*, 1885, p. 356; *id. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 66 (*Agg. Orn. Pap. e Mol.* p. 192) (1891).

? Goura albertsii (*sic*), *Tristr.* (*nec Salvad.*) *Cat. Coll. B.* p. 37 (1889) (Fly River).

Adult male. General colour bluish slate-grey; the feathers of the back have a brighter blue band near the tip, producing a scaly appearance; crest uniform bluish grey; lores and periophthalmic region black; throat bluish black; lower fore neck and upper breast purple-chestnut, changing into bluish slate-grey on the abdomen, vent, and under tail-coverts; smaller and median wing-coverts tipped with purple-chestnut; a broad white speculum on the wings, formed by the greater wing-coverts, which are broadly tipped with chestnut; the anterior one or two greater wing-coverts chestnut; tail uniform with the back, except the apical lighter band: "bill grey; feet purple-red; irides red" (*D'Albertis*). Total length 27·51 inches, wing 14·15, tail 10·41, bill 1·41, tarsus 3·38.

Female. Similar to the male.

Young. Similar to the adult, but wants the chestnut spots at the tip of the greater wing-coverts forming the speculum: "iris yellow" (*D'Albertis*).

Hab. Central and Southern New Guinea along the Fly and the Kataw Rivers.

a. ♂ ad. sk.	Fly River, N. Guinea, Sept. (*D'Albertis*).	Salvin-Godman Coll. (Compared with the type.)

3. Goura albertisii.

Goura scheepmakeri, *Salvad. & D'Alb.* (*nec Finsch*) *Ann. Mus. Civ. Gen.* vii. p. 837 (1875); *Finsch, Vög. d. Südsee*, p. 29 (Port Moresby) (1884, *nec* 1875); *Salvad. Ibis*, 1884, p. 355.

Goura albertisii, *Salvad. Atti R. Ac. Sc. Tor.* xi. pp. 628, 680, t. vii. (1876); *id. Ann. Mus. Civ. Gen.* ix. p. 208, n. 87 (1876); *Rams. Pr. Linn. Soc. N. S. W.* i. p. 394 (1876); *D'Alb. Sydn. Mail*, 1877, p. 248; *id. Ann. Mus. Civ. Gen.* x. p. 18 (1877); *Sharpe, Journ. Linn. Soc., Zool.* xiii. pp. 318, 503 (1877); *Rams. Pr. Linn. Soc. N. S. W.* iii. pp. 104, 294 (1878), iv. p. 101, n. 178 (1879); *Sharpe, Journ. Linn. Soc., Zool.* xiv. p. 688 (1879); *D'Alb. Nuova Guin.* pp. 187, 280, 585 (1880); *Salvad. Orn. Pap. e Mol.* iii. p. 202 (1882); *Rams. Pr. Linn. Soc. N. S. W.* viii. p. 26 (1883) (eggs); *id. Ibis*, 1884, p. 356; *id. Ann. Mus. Civ. Gen.* (2) ix. p. 590 (1890), x. p. 826 (1891); *id. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 66 (*Agg. Orn. Pap. e Mol.* p. 192) (1891).

Goura, or Lophyrus coronata, var. d'albertisii, *Rams. Pr. Linn. Soc. N. S. W.* i. p. 387 (1876).

Adult male. General colour bluish slate-grey; head and neck lighter; crest light bluish grey, with the tips of the feathers paler grey; chin, lores, and periophthalmic region black; lower fore neck, breast, and sides purple-chestnut with a greyish wash; upper breast brighter; vent and under tail-coverts bluish slate-grey; smaller and median wing-coverts like the back, with no chestnut edges; greater wing-coverts pale grey, forming a broad speculum on the wing, and tipped with broad chestnut spots; tail like the back, but with a broad pale grey band at the tip: "bill grey; feet dark [purple] red, toes paler; irides red" (*D'Albertis*). Total length 33·40–29·47 inches, wing 15·72–15·55, tail 11·79–11·61, bill 1·41–1·25, tarsus 3·75.

Female. Similar to the male.

Young. Similar to the adult, but the chestnut spots at the tip of the greater upper wing-coverts smaller or wanting altogether.

Hab. S.E. New Guinea.

a, b. Ad. sk.	Port Moresby (*A. Goldie*).	Salvin-Godman Coll.
c. Ad. sk.	Port Moresby.	Gould Coll.
d. Ad. sk.	Cloudy Bay.	Sir J. Ingham [P.].

4. Goura scheepmakeri.

Goura scheepmakeri, *Finsch, P. Z. S.* 1875, p. 631, pl. 68 (type examined); *Salvad. Atti R. Ac. Sc. Tor.* xi. p. 624 and follow., p. 674 and follow. (1876); *id. Ann. Mus. Civ. Gen.* ix. p. 208, n. 88 (1876); *id. Orn. Pap. e Mol.* iii. p. 204 (1882); *id. Ibis*, 1884, p. 356; *id. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 66 (*Agg. Orn. Pap. e Mol.* p. 192 (1891).

Type. Bluish slate-colour; crest uniform bluish slate without paler tips; periophthalmic region black; chin and frontal edge blackish; lower fore neck and breast purple-chestnut; speculum on the wings, formed by the greater wing-coverts, and apical band of

the tail pale bluish grey: bill in the dry skin black. Total length 24·36 inches, wing 13·28, tail 10·41, bill 1·33, tarsus 3·07.

Hab. Unknown, but probably South-western New Guinea, near Princess Marianne Straits.

Obs. This species is only known from the typical specimen in Count Turati's collection. It resembles *G. albertisii*, but differs in the following more important points:—1. The general bluish slate-colour is darker; 2, the feathers of the crest are uniform, without paler tips; 3, the purple-chestnut colour of the underparts is purer and less extended, not covering the flanks; 4, the speculum on the wing is of a darker grey; 5, the tail is darker, and has the apical band narrower and darker.

Besides there are other differences which may depend upon age; these are the smaller dimensions, the shorter feathers of the crest, the presence of a dark band over the speculum, and the want of the chestnut spots at the tip of the greater wing-coverts.

5. Goura victoria.

Lophyrus victoria, *Fraser, P. Z. S.* 1844, p. 136.
Columba steursii, *Temm. Mus. Lugd.* (1844).
Goura steursii, *G. R. Gr. & Mitch. Gen. B.* ii. p. 479, n. 2, pl. 120 (1845); *Rosenb. N. T. N. I.* xxv. p. 250, n. 244 (1863); *id. J. f. O.* 1864, p. 133, n. 244; *Wall. Malay Archip.* ii. p. 319 (1869).
Goura victoriæ, *Mitch. P. Z. S.* 1849, p. 171; *Fraser, P. Z. S.* 1850, p. 246; *Bp. Consp. Av.* ii. p. 96 (1854); *id. Compt. Rend* xxxix. p. 872 (1854), xl. p. 221, n. 288 (1855); *id. Coup d'œil Ordre Pig.* pp. 3, 59, n. 288 (1855); *G. R. Gr. List B. Brit. Mus.* Columbæ, p. 65 (1856); *Bolle, J. f. O.* 1856, p. 168; *Sclat. Journ. Pr. Linn. Soc.* ii. p. 167, n. 129 (1858); *G. R. Gr. P. Z. S.* 1858, p. 196; *id. Cat. B. New Guin.* pp. 49, 61 (1859); *Flower, P. Z. S.* 1860, p. 333, 1861, p. 438; *Blyth, Ibis*, 1861, p. 215; *Rchnb. Tauben*, i. p. 50, n. 107, t. 264. f. 1475 (1862); *Fraser, P. Z. S.* 1864, p. 160; *Schleg. De Dierent.* p. 208 (1864); *Sclat. P. Z. S.* 1865, p. 239; *Finsch, Neu-Guin.* p. 179 (1865); *Wall. Ibis*, 1865, p. 395, n. 118; *id. J. f. O.* 1866, p. 285; *Sclat. P. Z. S.* 1869, p. 628; *G. R. Gr. Hand-list*, ii. p. 247, n. 9457 (1870); *Schleg. Mus. P.-B.* Columbæ, p. 169 (1873); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 24, n. 146 (1873); *Garr. P. Z. S.* 1873, pp. 468, 639; *Gieb. Thes. Orn.* ii. p. 265 (1875); *Rosenb. Reist. naar Geelvinkb.* pp. 47, 53, 55, 117 (1875); *Becc. Ann. Mus. Civ. Gen.* vii. p. 716 (1875); *Salvad. t. c.* p. 792 (1875); *Rosenb. Malay. Archip.* p. 561 (1879); *Sclat. List Vert. An.* 8th ed. p. 463 (1883).
Lophyrus victoriæ, *Hartl. J. f. O.* 1854, p. 257.
Goura victoria, *Salvad. Ann. Mus. Civ. Gen.* ix. p. 208, n. 89 (1876); *D'Alb. Sydn. Mail*, 1877, p. 248; *id. Ann. Mus. Civ. Gen.* x. p. 18 (1877); *Salvad. Orn. Pap. e Mol.* iii. p. 205 (1882); *Meyer, Sitzb. u. Abh. Ges. Isis*, 1884, Abh. i. p. 52 (egg); *Meyer, Vogel-Skelet.* t. lvi. (1884); *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 66 (*Agg. Orn. Pap. e Mol.* p. 192 (1891).

Adult male. General colour bluish slate; feathers of the crest spatulated at the tip, the edge of the spatula white; lores and

periophthalmic region black; chin and frontal edge blackish; blue colour of the neck changing into purple-chestnut on the lower part of it and on the breast; wing-speculum formed by the greater wing-coverts, and apical band of the tail bluish grey; greater wing-coverts tipped with large chestnut spots: bill black; feet purple-red, toes paler; irides red. Total length about 27·51 inches, wing 13·75, tail 10·61–10·22, bill 1·25, tarsus 3·34–3·18.

Female. Similar to the male.

Young. Smaller; the purple-chestnut colour on the breast less conspicuous, the chestnut spots at the tip of the greater wing-coverts smaller, or even wanting; crest of the feathers narrower, and with the apical white edge less conspicuous.

Hab. Jobi and Mysori in Geelvink Bay.

a. Ad. st.	New Guinea.	Zool. Society's Coll.
b. ♀ ad. sk.	Ansus, Jobi Is. (*A. B. Meyer*).	Tweeddale Coll.
c, *d*. ♂ juv. et ad. sk.	Kordo, April (*A. B. Meyer*).	Salvin-Godman Coll.
e. Ad. [head].		Gould Coll.
f. Skeleton.		Zool. Society's Coll.
g. Skeleton.		Dr. Falconer [P.].

6. Goura beccarii.

Goura, sp., *Salvad. Ann. Mus. Civ. Gen.* viii. p. 405 (1876) (Humboldt Bay).

Goura beccarii, *Salvad. l. c.* p. 406 (1876), ix. p. 208 (note) (1876); *id. Orn. Pap. e Mol.* iii. p. 208 (1882); *Meyer, Zeitschr. f. ges. Orn.* 1886, p. 17 (Kafu); *Salvad. Mem. R. Ac. Sc. Tor.* (2) xlii. p. 67 (*Agg. Orn. Pap. e Mol.* p. 193) (1891).

Goura victoriæ, var. comata, *Oust. Ann. Sc. Nat.* 1885, Art. 3, p. 3 (Kafou).

Very much like *G. victoria* (Fraser), but larger and stronger, with stronger feet and longer toes; the crest larger, fuller, and with the apical spatula broader; the general greyish-blue colour lighter, and the dorsal feathers scarcely edged. Total length 31 inches, wing 15·5, tail 11·5, bill 1·4, tarsus 3·5: "spatula of the feathers of the crest sometimes 40 mm. (=1·57 inch) broad" (*Meyer*).

Beside the type (a head) described by me, I have seen a fine specimen in Mr. Hartert's possession, and the types of *G. victoria*, var. *comata*, Oust., in the Museum of Paris.

Hab. Northern New Guinea, near Humboldt Bay and Kafu *.

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* I am not acquainted with the following subspecies:—

Goura beccarii huonensis, *Meyer, Orn. Jahresb.* i. Jahrg. April 1893, Nr. 4. ? Goura victoriæ, *De Vis* (*nec Fraser*), *Zoolog. Glean.* (*Ann. Rep. Brit. New Guin.* for the years 1890–91); *id. Ann. Queensl. Mus.* no. 2, p. 9 (1892) (Collingswood Bay).

Goura *G. beccarii* similis, sed major, supra cærulescentior et subtus vinaceo-purpurea. Pedibus rubris. Long. tot. c. 830, al. 410, caud. 325, rostri culm. 64, tarsi 94.

Hab. Nova Guinea Orientali, prope sinum Huon (*Meyer*).

Family V. DIDUNCULIDÆ.

1. DIDUNCULUS.

Type.

Didunculus, *Peale*, fide *Strickl. Report Brit. Assoc.* 1844, p. 189; *Peale, U.S. Expl. Exped.* viii. p. 208, pl. lx. (1848) ..... D. strigirostris.

Gnathodon, *Jardine, Ann. & Mag. N. H.* xvi. p. 174, pl. ix. (1845) (*nec Gr.* 1837) ..... D. strigirostris.

Pleiodus, *Rchnb. Syn. Av.* f. 1528 (1847) (=Gnathodon); *id. Av. Syst. Nat.* t. xxv. (1852).

Knathodon, *Peale, l. c.* p. 209, footnote (1848).

Range. Confined to the Samoan Islands.

1. Didunculus strigirostris.

Gnathodon strigirostris, *Jard. Ann. & Mag. N. H.* xvi. p. 175, pl. ix. (1845); *Gould, B. Austr.* v. pl. 76 (part xxii., 1846); *Jard. Illustr. of Ornith.* 1851, p. 113.

Pleiodus strigirostris, *Rchnb. Syn. Av.* f. 1528 (1847); *Cass. Un. St. Expl. Exped., Orn.* p. 279, pl. 34 (1858); *Rchnb. Tauben*, ii. p. 187, *Novit. Suppl.* t. vii. f. 79 (1862).

Didunculus strigirostris, *Peale, Un. St. Expl. Exped., Birds*, p. 209, pl. 60 (1848); *G. R. Gr. Gen. B.* ii. p. 480, pl. cxx. (1848); *Sundev. Årsb.* 1845–50, p. 273; *Rchnb. Vög. Neuholl.* ii. p. 322, n. 439 (1850); *id. Syn. Av.* Columbariæ, *Novit.* t. 271. ff. 2497–98 (1851); *id. Av. Syst. Nat.* p. xxiv (1852); *Hartl. Wiegm. Archiv*, 1852, i. pp. 117, 134; *Walpole, P. Z. S.* 1852, p. 87; *Des Murs, Enc. Hist. Nat., Ois.* vi. p. 69, fig. 73 (1853); *Rchnb. J. f. O.* 1853, p. 9; *Hartl. J. f. O.* 1854, p. 169; *Bp. Consp. Av.* ii. p. 5 (1854); *id. Compt. Rend.* xxxix. p. 872 (1854), xl. p. 216, n. 1 (1855); *id. Coup d'œil Ordre Pig.* pp. 4, 54, n. 1 (1855); *id. Icon. Pig.* pl. cxl. (1857); *G. R. Gr. Cat. B. Trop. Isl.* p. 46 (1859); *Rchnb. Tauben*, i. p. 124, t. 271. ff. 2497–98, t. 275. f. 1528 (1862); *Bennett, Sydney Herald*, August 19th, 1862; *id. P. Z. S.* 1862, p. 249; *Sclat. P. Z. S.* 1863, p. 102; *id. Ibis*, 1863, p. 239; *Bennett, P. Z. S.* 1863, pp. 372, 439, 1864, p. 139; *id. Ann. & Mag. N. H.* (3) xiii. p. 259 (1864), xiv. p. 454 (1864); *Rams. Ibis*, 1864, p. 98; *id. J. A. S. B.* xxxiii. p. 373, with pl. (1864); *Sclat. P. Z. S.* 1864, p. 158; *A. Newt. P. Z. S.* 1865, p. 256 (egg); *id. Ibis*, 1865, p. 332; *Gould, Handb. B. Austr.* ii. App. p. 556 (1865); *Finsch, J. f. O.* 1866, p. 37; *Brehm, J. f. O.* 1866, p. 388; *Owen, Tr. Zool. Soc.* vi. pp. 66 and foll., pl. xv. f. 2, pl. xxiv. f. 1 (sternum) (1867); *Finsch, & Hartl. Orn. Centralpolyn.* p. 150, t. xi. f. 3 (young), t. iii. f. 1 (egg) (1867); *A. Newt. P. Z. S.* 1867, pp. 162, 164, pl. xv. f. 6 (egg); *G. R. Gr. Hand-list*, ii. p. 248, n. 9455 (1870); *Gräffe, J. f. O.* 1870, p. 418; *Hartl. & Finsch, P. Z. S.* 1871, p. 22; *Finsch, J. f. O.* 1872, pp. 33, 50 (Savai, Upolu, Tutuila); *Sundev. Tent.* p. 98 (1872); *Salv. Ibis*, 1872, p. 208; *Dorner, Zool. Gart.* 1872, p. 97; *Schleg. Mus. P.-B.* Columbæ, p. 167 (1873); *Sousa, Mus. Nac. Lisb.* Columbæ, p. 5, n. 1 (1873); *Garrod, P. Z. S.* 1873, pp. 468, 639, 1874, pp. 250, 256; *Whitmee, P. Z. S.* 1874, p. 182;

Bennett, P. Z. S. 1874, p. 186; *Sclat. P. Z. S.* 1874, p. 605; *Whitmee, Ibis*, 1875, p. 446; *Gieb. Thes. Orn.* ii. p. 46 (1875); *Whitmee, P. Z. S.* 1875, p. 495; *Eyton, Osteol. Av.* pls. 22, 22 A (1875); *Sclat. P. Z. S.* 1876, p. 462; *E. L. Layard, P. Z. S.* 1876, p. 496; *A. Newt. Nature*, 1878, pp. 251, 331; *Searles, ibid.* p. 301; *Nehrk. J. f. O.* 1879, p. 408; *Deslongch. Ann. Mus. H. N. Caen*, i. pp. 53–57 (1880); *Schmeltz, Ethn. Abth. Mus. Godeffr.* p. 205 (1881); *Sclat. List Vert. An.* 8th ed. p. 463 (1883); *Bolau, Zool. Gart.* 1884, p. 65; *Meyer, Vogel-Skelett.* pp. 42, 43, pl. lv. (1884); *Sclat. P. Z. S.* 1887, p. 482 (living specimen); *Tristr. Cat. Coll. B.* p. 46 (1889); *Hein. & Rchnw. Nomencl. Mus. Hein. Orn.* p. 287 (1890); *Hartert, Kat. Vogelsamml.* p. 191 (1891); *Wiglesw. Aves Polynes.* p. 57, n. 296 (1891); *A. Newt. Dict. of Birds*, p. 154 (1893).

Treron strigirostris, *Schleg. De Dierent.* fig. p. 215 (1864).

Adult male. Head, neck, mantle, chin, throat, and upper breast metallic black-green; the edges of the feathers of the mantle and of the sides of the lower neck show a greyish tinge; back, rump, upper tail-coverts, wings, and tail chestnut; lower breast and abdomen brown-black; under tail-coverts brown-chestnut; quills, except the inner secondaries or tertials, brown, underneath greyish brown; under wing-coverts brown; base of the tail-feathers blackish brown, especially on the inner webs: bill orange; base of the under mandible cinnamon-red; orbital naked skin fleshy red; feet ochreous red; iris brown. Total length about 12 inches, wing 7·5, tail 4, bill 0·87, tarsus 1·4.

Female. Similar to the male.

Young. Entirely brown (*Finsch & Hartlaub*), but an immature bird mentioned below has the brown feathers of the upper parts and of the breast with crescentic rufous bands.

Hab. Samoa Islands—Upolu, Savai, and Tutuila.

a. Ad. sk.	Navigator's Is.	Zoological Society's Coll.
b. Ad. sk.	Samoa.	Mrs. Sclanders [P.].
c, d, e. Ad. sk. et st.	Samoa.	Rev. S. J. Whitmee [P.].
f. ♂ ad. sk.	Samoa.	
g. Ad. sk.	Samoa (*Kubary*).	Salvin-Godman Coll.
h. Juv. sk.	Samoa (*Rev. G. Brown*).	Salvin-Godman Coll.
i. Skeleton.	Navigator's Is.	J. Brenchley, Esq. [P.].
k. Head without feathers.	Samoa.	Rev. S. J. Whitmee [P.].

Suborder II. DIDI.

(Cf. *Strickland & Melville, The Dodo and its Kindred, or the History, Affinities, and Osteology of the Dodo, Solitaire, and other extinct Birds of the Islands Mauritius, Rodriguez, and Bourbon*, pp. 1–141, pls. xv. London, 1848.)

This suborder includes very large and massively built forms, agreeing with the *Columbæ* in the truncation of the angle of the mandible, but with the extremity of the cranial rostrum strongly hooked. They are incapable of flight, the wing-bones being small, the carina of the sternum aborted, and the coracoidal grooves shallow and separated from one another (*Lydekker*). According to Huxley (P. Z. S. 1867, p. 434) they have no basipterygoid processes. The nostrils are decidedly oblique.

The birds of this suborder are all extinct, and were confined to the Mascarene Islands of Mauritius, Réunion, and Rodriguez.

Family I. DIDIDÆ.

Key to the Genera.

a. Bill not longer than the head, slightly hooked, and the nasal and maxillary processes of the præmaxillæ diverging anteriorly; the frontal region flat, with but little cancellous tissue. Coracoid stout. Manus armed with an ossified tuberosity. Neck and feet long. Delto-pectoral crest of humerus aborted. Male much larger than the female. (*Lydekker.*) . . 1. PEZOPHAPS, p. 629.

b. Bill longer than the head, deeply hooked, and the nasal and maxillary processes of the præmaxillæ converging anteriorly; the front region inflated into a subconical prominence of cancellous tissue. Neck and feet shorter than in *Pezophaps*. Delto-pectoral crest of humerus distinct. (*Lydekker.*) . . . . . 2. DIDUS, p. 632.

1. PEZOPHAPS.*

Type.

Pezophaps, *Strickl., The Dodo and its Kindred*, pp. 46, 54 (1848) ..... P. solitarius.

Cf. *Newton, A. & E., "On the Osteology of the Solitaire or Didine Bird of the Island of Rodriguez* (Pezophaps solitaria, *Gm.*)" (*Phil. Trans.* 1869, pp. 327–362, pls. xv.–xxiv.).

Range. Confined to Rodriguez Island.

1. Pezophaps solitarius.

Solitaire, *Leguat, Voyage en deux iles désertes des Ind. Orient.* i. pp. 98–102, fig. p. 98 (1708); (Anonymous) *Relation de l'Ile Rodrigue, Isle de France, Correspondance g^le* vol. 12 (*Arch. de la Marine*) (1760); *Buff. Hist. Nat. Ois.* i. p. 485 (1770); *Borowsk. Nat.* ii. p. 162 (1781); *Ray (P. A. F.), Zool. Univ. et portat.* p. 567 (1788); *Grant, Hist. of Mauritius &c.* p. 117 (1801); *Dum. Dict. Sc. Nat.* xlix. p. 451 (1827); *Strickl. The Dodo and its Kindr.* pp. 46, 56, fig. p. 49, pp. 113–119, pls. xiii., xiv., xv. (1848); *Schleg. Versl. en Meded. d. k. Ak. van Wetensch., Afd. Natuurk.* vii. p. 126 (1857); *id. Ibis*, 1866, pp. 150, 152; *id. Ann. Sc. Nat.* (5) vi. pp. 29, 31, pl. i. f. 3 (1866).

Solitary Dodo, *Lath. Gen. Syn.* iii. 1, p. 3, n. 2 (1785); *id. Gen. Hist.* viii. p. 374 (1823).

Didus solitarius, *Gm. S. N.* i. p. 728, n. 2 (1788); *Lath. Ind. Orn.* ii. p. 662, n. 2 (1790); *Bonn. Enc. Méth.* i. p. 166 (1790); *Dondd. Orn. Beytr. &c.* ii. p. 20 (1795); *Bechst. Lath. Uebers.* ii. p. 765 (1795); *Rees, New Cyclop.* 10, pt. 2, Didus (1808); *Cuv. Règn. An.* i. p. 463 (1817); *Sonnini, N. D.* xxxi. p. 376 (1819); *Steph. Gen. Zool.* xiv. p. 309 (1826); *Ranz. Elem. di Zool.* iii. pt. ix. p. 311 (1826); *Cuv. Règn. An.* 2nd ed. i. p. 497 (1829); *Less. Tr. d'Orn.* p. 11 (1831); *Strickl. P. Z. S.* 1844, pp. 77–79; *id. Instit.* xiii. n. 582, pp. 73–74 (1845); *E. Newt. Tr. R. Soc. Arts and Sc. of Mauritius*, (n. s.) iii. pp. 31–38 (1866).

Dronte, *Cuv. Ann. Sc. Nat.* vol. 31, *Rev. Bibl.* p. 103; *id. Bull. Sc. Nat.* xxii. pp. 122–125 (1830) (Isle de France, *errore*).

Dodo, *Cuv. Edinb. Journ. Nat. and Geogr. Sc.* (n. ser.) iii. pp. 30–32 (1831); *Dujard. Analys. des Tr. Soc. Hist. nat. de l'ile Maurice, pend. le 2nde Année*, p. . . . (1832); *id. P. Z. S.* 1832, p. 111

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* The following two extinct birds have been referred to the genus *Pezophaps*, but both are Ralline Birds with rudimentary wings:—

1. Didus broeckii, *Schleg. Versl. en Meded. k. Ak. Amsterd.* ii. p. 256 (1854).
   Pezophaps broeckei, *Schleg. Mus. P.-B.* Struthiones, p. 4 (1873); *Gieb. Thes. Orn.* iii. p. 75 (1877).
   This is *Aphanapteryx broeckii*=*A. imperialis*, Frauenf.

2. Didus herbertii, *Schleg. Versl. en Meded. k. Ak. Amsterd.* ii. p. 256 (1854).
   Pezophaps herberti, *Schleg. Mus. P.-B.* Struthiones, p. 4 (1873); *Gieb. Thes. Orn.* iii. p. 75 (1877).
   This is *Miserythrus leguati*, Alph. M.-Edw., also a Ralline bird (Ibis, 1874, p. 455).

(Rodriguez); *id. Philos. Mag.* (2) i. p. 461; *Telfair, P. Z. S.* 1833, p. 31 (Rodriguez).

Pezophaps solitaria, *Strickl. The Dodo, &c.* p. 46 (1848); *Selys-Longch. Rev. Zool.* 1848, p. 293, n. 2; *G. R. Gr. Gen. B.* ii. p. 483 (1848); *Strickl. Contr. to Orn.* 1852, p. 19; *Bp. Consp. Av.* ii. p. 3 (1854); *id. Compt. Rend.* xliii. p. 840, n. 6 (1856); *Strickl. Tr. Zool. Soc.* iv. pp. 187–196, pl. 35 (1859); *Rchnb. Tauben*, i p 128 (1862); *Lunel, Bull. Soc. Orn. Suisse*, 1865, p. 150; *A. Newt. P. Z. S.* 1865, pp. 715–718; *id. Ibis*, 1865, p. 552, 1867, p. 146, 1868, p. 362; *A. & E. Newt. Pr. Roy. Soc.* xvi. pp. 428–433 (1868); *id. Ann. & Mag. N. H.* (4) ii. pp. 159–165 (1868); *id. Philos. Trans.* 1869, pp. 327–362, pls. xv.–xxiv.; *Clark, P. Z. S.* 1869, p. 473; *Owen, Tr. Zool. Soc.* vii. pp. 513–525, pl. 66. ff. 1–4 (1871); *A. Newt. Ibis*, 1872, p. 32; *Salv. & Sclat. Ibis*, 1872, p. 448; *Schleg. Mus. P.-B.* Struthiones, p. 4 (1873); *A. Newt. P. Z. S.* 1873, p. 195, 1875, p. 40; *A. & E. Newt. Ibis*, 1876, p. 288; *Gieb. Thes. Orn.* iii. p. 75 (1877); *Owen, Ann. & Mag. N. H.* (5) i. pp. 87–98, pls. vii. & viii. (1878); *A. Newt. P. Z. S.* 1878, p. 291; *E. Newt. & J. W. Clark, Philos. Trans.* 1879, pp. 438–451, pls. xliv.–l.; *Lindsay, P. Z. S.* 1885, p. 712, f. 4 (sternum); *Lydekker, Cat. Foss. B.* p. 128 (1891).

Didus nazarenus, *Bartl. (nec Gm.) P. Z. S.* 1851, p. 284, pl. xlv.*; *id. Ann. & Mag. N. H.* (2) xiv. pp. 297–301 (1854); *A. Newt. P. Z. S.* 1865, pp. 199–201, pl. viii.†, p. 716 (= P. solitaria); *id. Ann. & Mag. N. H.* (3) xvi. pp. 61–63 (1865); *id. Ibis*, 1865, p. 153 (note), p. 552.

Pezophaps minor, *Strickl. Contr. to Orn.* 1852, p. 19; *id. Tr. Zool. Soc.* iv. p. 191 (♀) (1859); *A. Newt. P. Z. S.* 1865, p. 716 (note); *Owen, Tr. Zool. Soc.* vii. pp. 519, and follow., pl. lxvi. ff. 5, 6, 7, 12 (1871).

Didus ineptus, *A. Newt. (nec L.) Ibis*, 1865, pp. 199, 201 (Rodriguez).

Pezophaps solitarius, *A. Newt. Enc. Brit.* 3rd ed. iii. p. 732, with figure (*ex Leguat*) (1875); *Sharpe, Cat. Mus. R. Coll. Surg.* iii. p. 160 (1891).

Known from its bones, from the original account and figure of Leguat (1691–1693), and also from some meagre information we have from D'Heguerty (1754) ('Mém. de la Soc. Roy. des Sc. et Belles-Lettres de Nancy,' i. p. 79), and from the account given by the Abbé Pingré, who states that he was assured in 1761 that the bird was then alive ('Rélations du voyage de l'abbé Pingré à l'île de Rodrigue,' MS. in the library of Ste. Geneviève at Paris).

The following is an extract from Leguat's description:—"The Feathers of the *Males* are of a brown grey Colour; the Feet and Beak are like a Turkeys, but a little more crooked. They have scarce any Tail, but their Hind-part cover'd with Feathers is Roundish, like the Crupper of a Horse, they are taller than Turkeys. Their Neck is straight and a little longer in proportion than a Turkeys, when it lifts up his Head. Its Eye is black and lively, and its Head without Comb or Cop. They never fly, their wings are too little to support the

* "On some Bones of *Didus*" (*l. c.* pp. 280–284).

† "On some recently discovered Bones of the largest known species of Dodo *Didus nazarenus*, Bartlett)."

weight of the Bodies; they serve only to beat themselves, and flutter when they call one another. They will whirl about for twenty or thirty times together on the same side, during the space of four or five Minutes: The Motion of their Wings makes them a Noise very like that of a Rattle; and one may hear it two hundred Paces off. The Bone of their Wing grows greater towards the extremity, and forms a little round Mass under the Feathers as big as a Musket Ball: That and its Beak are the chief Defence of this Bird . . . . some of the Males weigh forty-five pounds. The *Females* are wonderfully beautiful, some fair, some brown; I call them fair, because they are of the colour of fair Hair: They have a sort of Peak like a Widow's upon their Breasts (*lege* beaks), which is of dun Colour. No one Feather is stragling from the other all over their Bodies, they being very careful to adjust themselves, and make them all even with their Beaks. The Feathers on their Thighs are round like Shells at the end, and being there very thick, have an agreeable effect. They have two Risings on their *Craws*, and the Feathers are whiter than the rest, which lively represents the fine Neck of a Beautiful Woman. They walk with so much Stateliness and good Grace, that one can not help admiring and loving them; by which means their fine Mein often saves their lives.

. . . . .

"We find in the Gizzards of both Male and Female a brown Stone, of the bigness of a Hens Egg, 'tis somewhat rough, flat on one side, and round on the other, heavy and hard. We believe that this Stone was there when they were hatch'd, for let them never be so young, you meet with it always. They have never but one of 'em, and besides, the Passage from the Craw to the Gizzard is so narrow, that a like Mass of half the bigness cou'd not pass. It served to whet our Knives, better than any other Stone whatsovever."

According to D'Heguerty this bird was larger than a Swan.

Hab. Rodriguez Island.

a, b. ♂ ♀ skeletons.	Rodriguez.	Transit of Venus Exp. [C.]. Royal Soc. [P.].
c, d. Nearly complete sets of bones of two individuals.	Rodriguez.	Transit of Venus Exp. [C.]. Royal Soc. [P.].

e. A selection of the miscellaneous bones from the coll. of the 'Transit of Venus' Expedition.

f. Proximal end of right humerus (Strickl. Tr. Zool. Soc. iv. pl. 55. ff. 1, 2).

g. Right femur of female (?).

h. Cast of right femur (Strickl. & Melville, 'Dodo' &c. pl. xiv. ff. 4–7).

i. Cast of shaft of right femur.

k. Fragment of right femur (Strickl. Tr. Zool. Soc. iv. pl. 55. f. 3).

l. Right tibia (Strickl. Tr. Zool. Soc. iv. pl. 55. f. 4).

m. Cast of fragment of tibia in Oxford University Museum (Strickl. & Melv. *op. cit.* pl. xv. f. 1).

n. Cast of tarso-metatarsus in Oxford University Museum (Strickl. & Melv. 'Dodo' &c. pl. xv. f. 2, and *Didus nazarenus*, Bartl. P. Z. S. 1851, pl. 45. f. 1).
o. Right tarso-metatarsus (*Didus solitarius*, Bartl. P. Z. S. 1851, p. 283, pl. 45. f. 2).
p. 22 odd bones presented by Sir E. Newton.

2. DIDUS.

	Type.
Raphus, *Briss. Orn.* v. p. 15 (1760) (*ex Moehring*).	
Didus, *Linn. S. N.* i. p. 267 (1766)	D. ineptus.
? Apterornis, *De Selys, Rev. Zool.* 1848, p. 293	D. ? borbonicus.
? Ornithaptera, *Bp. Consp. Av.* ii. p. 2 (1854)	D. ? borbonicus.

Range. Mauritius and Réunion (?) Islands.

Key to the Species.

a. Plumage dark ashy; first four primaries directed backwards ..... *ineptus*, p. 632.
b. Plumage white, with some admixture of yellow; first four primaries directed downwards and forwards ..... ? *borbonicus*, p. 635.

1. Didus ineptus.

Walghvögel, *Van Neck, Voy.* pl. 2 (1601).
Walchvögel, *De Brys, Orient. Ind.* pt. xv. t. ii. (1601).
Gallinaceus gallus peregrinus, *Clus. Exot. Libr.* v. p. 99, t. 100 (1605); *Olear. Mus.* p. 23, t. 13. f. 5 (1750).
Dod-eersen, or Valgh-vogel, *Herbert's Travels*, 1st ed. (1634) t. p. 212, 2nd ed. (1638) p. 110, 3rd ed. (1665) p. 107, 4th ed. (1677) p. 102.
Cygnus cucullatus, *Nieremb. Nat.* p. 231 (with figura ex Clusius) (1635); *Willughb. Orn.* p. 107, t. xxvii. (1676); *Ray, Syn. Av.* p. 37, n. 4 (1713); *Jonst. Av.* p. 122, t. 56 (*ex Clusius*) (1768).
Dronte, *Bont. Ind. Orient.* t. p. 70 (1658); *Buff. Hist. Nat. Ois.* i. p. 480 (1770); *Morel, Observ. sur la Phys.* xii. p. 154 (notes), p. 175 (1778).
Raphus, *Moehr. Av. Gen.* 57 (1752); *Briss. Orn.* v. p. 15 (1760).
Dodo, *Edw. Glean. Nat. Hist.* iii. p. 179, pl. 294 (1757); *Broderip, Penny Cyclopædia*, ix. pp. 47–55 (1837); ? *Caldw. P. Z. S.* 1885, p. 719; *A. Newt. Dict. of Birds*, p. 155 (1893).
Didus ineptus, *Linn. S. N.* i. p. 267, n. 1 (1766); *Borowsk. Nat.* ii. p. 161, t. 25 (1781); *Gm. S. N.* i. p. 728, n. 1 (1788); *Lath. Ind. Orn.* ii. p. 662, n. 1 (1790); *Bonn. Tabl. Enc. Méth.* i. p. 166, pl. 48. f. 1 (1790); *Illig. Prodr. Mamm. et Av.* p. 245 (1811); *Sonnini, N. D.* ix. p. 589 (1817); *Cuv. Règn. An.* i. p. 463 (note) (1817); *Dum. Dict. Sc. Nat.* xiii. pp. 519–522 (1819); *Vigors, Trans. Linn. Soc.* xiv. p. 484 (1823); *Steph. Gen. Zool.* xiv. 1, p. 308 (1826); *Ranz. Elem. di Zool.* iii. pt. ix. pp. 304–312(1826); *Duncan, Zool. Journ.* iii. pp. 554–566, ff. 1, 2, 3 (1827); *id. Bull. Sc. Nat.* xv. pp. 304, 305 (1828); *Thomps. Loudon's Mag. N. H.* ii. pp. 442–448 (1829); *Less. Tr. d'Orn.* pp. 10–11 (1831); *Blainv. Nouv. Ann. du Mus.* iv. pp. 1–36, pls. i.–iv. (1835); *Less. Compl.*

de Buff., Ois. vii. p. 5 (1836); *id. op. cit.* 2nd ed. p. 72 (1838); *G. R. Gr. List Gen. B.* p. 64 (1840); *id. op. cit.* 2nd ed. p. 82 (1841); *Reink. Krøyer's Naturhist. Tidsskr.* iv. pp. 71, 72 (1842) (*Isis*, 1843, pp. 58, 59); *Strickl. P. Z. S.* 1844, p. 77; *id. Institut*, xiii. n. 582, pp. 73, 74 (1845); *Hamel, Bull. phys.-math. Acad. Petersb.* iv. pp. 49–68 (1845); *Lehmann, Nova Act. Ac. Leop.-Car. Nat. Cur.* xxi. pt. 1, pp. 399–404 (1845); *Owen, P. Z. S.* 1846, pp. 51–53; *id. Fror. N. Not.* xl. n. 867, pp. 134–136 (1846); *Hamel, Bull. phys.-math. Acad. Pétersb.* v. pp. 314–318 (1847); *Cabot, Boston Journ. Nat. Hist.* v. pt. 4, p. 490 (1847); *Wagner, Bull. Akad. München*, 1847, pp. 266–272; *Brandt, Verh. russ. k. mineral. Ges. Petersb.* 1847, pp. 201–243; *Owen, P. Z. S.* 1848, pp. 2–6; *Brandt, Bull. phys.-math. Acad. Pétersb.* vii. n. 3, 6, pp. 37–42 (1848); *Hamel, ibid.* n. 5, 6, pp. 65–96 (March 1848); *id. Archiv f. Naturg.* 1848, i. pp. 118–156; *Fitzinger, Archiv f. Naturg.* 1848, i. pp. 79–81; *G. R. Gr. Gen. B.* ii. p. 482, pl. 120* (head), 120* (foot) (1848); *Strickl. & Melv. The Dodo and its Kindred*, p. 152 (1848); *Steenstr. Forhandl. Skand. Naturf. Möde i Kjöbenh.* (1847) 1849, pp. 948, 949; *Owen, Tr. Zool. Soc.* iii. pp. 331–338 (1849); *Strickl. Ann. Nat. Hist.* (2) iii. pp. 136–139, 259–261 (1849), iv. pp. 335–339 (1849), v. pp. 290, 291 (1850); *Sundev. Arsberätt. om Framsteg. i Vertebr. Djurens Naturalhist. og Ethnogr.* 1845–50, p. 254; *Jard. Contr. to Orn.* 1850, p. 123; *Bartl. P. Z. S.* 1851, pp. 280–284; *id. Ann. N. H.* (2) xiv. pp. 279–301 (1854); *Broderip, P. Z. S.* 1853, pp. 54–57, fig. p. 55; *id. Ann. N. H.* (2) xv. pp. 143–146 (1855); *Schleg. Album der Natur*, p. 323 (1854); *id. Versl. en Meded. K. Ak. Amsterd.* ii. pp. 232–356 (1854); *Bartl. Ann. & Mag. N. H.* (2) xiv. p. 297 (1854); *Bp. Consp. Av.* ii. p. 2 (1854); *Reuss, Denkschr. k. Ak. Wiss. in Wien*, p. 71, pl. i (upper mandible and part of the skull in Prague Museum) (1855); *Bp. Compt. Rend.* xliii. p. 840, n. 4 (1856); *Bolle, J. f. O.* 1856, pp. 318, 323; *Broderip, Tr. Zool. Soc.* iv. pp. 183–186, 197–199, pl. 59 (1859); *A. Newt. P. Z. S.* 1860, p. 443; *Rchnb. Tauben*, i. p. 125 (1862), ii. p. 187, *Novit. Suppl.* t. vii. ff. 82, 83, 84, 85 (1862); *Cocquerel, Anim. perd. qui habit. les iles Mascareignes* (1863); *A. Newt. Ibis*, 1865, pp. 552, 732 (Mauritius), 1866, p. 128; *Clark, Ibis*, 1866, pp. 141–146; *id. Ann. Sc. Nat.* (5) vi. pp. 19–24 (1866); *Gerv. & Cocquerel, Compt. Rend.* lxii. pp. 924–928, 1017 (1866); *id. Rev. et Mag. de Zool.* 1866, pp. 209–215; *Milne-Edw. Compt. Rend.* xlii. pp. 929–932, 1092 (1866); *id. Ann. Sc. Nat.* v. pp. 355–380, pls. 13–17 (1866); *id. Rev. et Mag. de Zool.* 1866, pp. 215–219; *id. Ann. & Mag. N. H.* (3) xvii. pp. 473–475 (1866); *R. Meyer, Zool. Gart.* 1866, pp. 352–354; *Owen, P. Z. S.* 1866, p. 4; *id. Mem. on the Dodo, etc.* pp. 55, pls. xii. (1866); *id. Tr. Zool. Soc.* vi. pp. 49–85, pls. xv.–xxiv. (1867); *Brandt, Bull. Ac. Imp. Sc. Pétersb.* vi. pp. 233–253 (1867); *Behn, Allg. deutsch. naturh. Zeit.* 1867, pp. 164, 169; *Frauenf. Neu aufgef. Abbild. des Dronte u. s. w.* pp. 17, Taf. 1 (1868); *Jaeckel, Zool. Gart.* 1868, pp. 35–37, with fig.; *Millies, Over eene nieuw ontd. Afbeel. von den Dodo* (Didus ineptus), pp. 20 (*Verh. k. Ak. Wetensch. Amsterd.* xi. 1868); *J. Reink. Overs. K. Danske Vidensk. Selsk. Forh.* 1868, p. 158; *Clark, P. Z. S.* 1869, p. 473; *G. R. Gr. Hand-list*, ii. p. 248, n. 9456 (1870); *Owen, P. Z. S.* 1871, p. 299; *id. Tr. Zool. Soc.* vii. pp. 513–525, pls. lxiv.–lxvi. ff. 8, 11, 14, 17 (1871); *id. Ann. & Mag. N. H.* (4) ix. pp. 168, 241, 331 (1871); *Sundev. Tent.* p. 98 (1872); *Schleg. Mus. P.-B. Struthiones*, p. 3 (1873);

Wilmot, Field, xliii. p. 177, n. 1104, Feb. 21, 1874; *A. Newt. P. Z. S.* 1874, pp. 447–449, 1875, p. 349; *Gieb. Thes. Orn.* ii. p. 46 (1875); *Newt. Enc. Brit.* iii. p. 732 (1875); *id. P. Z. S.* 1876, p. 333; *id. Enc. Brit.* vii. p. 321 (1877); *Cory, Beaut. & Curious Birds*, pt. i. pl. 1 (1880); *Lindsay, P. Z. S.* 1885, p. 712, f. 1 (sternum); *Caldw. P. Z. S.* 1885, p. 719; *E. Newt. P. Z. S.* 1890, p. 402; *Lucas, Rep. Nat. Mus.* 1888–89, p. . . .; *Lydekker, Cat. Foss. B.* p. 129 (1891); *Sharpe, Cat. Mus. Roy. Coll. Surg.* iii. p. 159 (1891); *E. Newt. & Gadow, P. Z. S.* 1892, pp. 544, 545.

Hooded Dodo, *Lath. Gen. Syn.* v. p. 1 (1787); *Shaw, Nat. Misc.* iv. pl. 123, pl. 143 (leg) (1792 c.), v. pl. 166 (head) (1792 c.); *id. Zoolog. Lect.* i. p. 213.

The following description is copied from Edwards, who took it from an original picture of the bird then in his possession and now in the British Museum :—

"The figure in the original is about thirty inches high; the bill in its greatest lineal length is nine inches; the eyes are placed in the basis of the upper mandible.

"The bill, which is hooked at the end like a Parrot's, is blackish, except a little redness above the tip on its arched part; it hath risings above the nostrils; half the bill, next the head, is of a light ash-colour; the iris of the eye is whitish. The feathers of the crown of the head meet and join the bill in an angle, forming the appearance of a hood. The whole bird, except the wings and tail, is an ash-colour, darker on the upper side, and lighter on the under; the breast is almost white, and the feathers about the joints of the legs almost black. The tail is placed very high, and the feathers, which are of a whitish colour, rising. The greater or quill feathers of the wings are of a yellowish-white, the covert-feathers white with black tips, and the smaller coverts on the ridge of the wing ash-coloured. The legs and feet, which are thick and strong, are covered with a scaly yellow skin; each foot hath three toes standing forward, and one backward *; the claws are black."

This bird, which inhabited Mauritius, is now extinct; it was still living in 1681; the last evidence we have of the Dodo's existence

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* The following references belong to a bird described by Cauche with only three toes; but it is generally admitted that this was a mistake, and that the bird was the Dodo :—

Oiseau de Nazareth, *Cauche, Descr. de l'île de Madag.* pp. 130 and follow. (1651).

Oiseau de Nazare ou Oiseau de nausée, *Buff. Hist. Nat. Ois.* i. p. 485 and follow. (1770); *Dum. Dict. Sc. Nat.* xxxv. p. 494 (1825).

Nazarene Dodo, *Lath. Syn. Av.* iii. 1, p. 4, n. 3 (1781).

Didus nazarenus, *Gm. S. N.* i. p. 729, n. 3 (1788); *Lath. Ind. Orn.* ii. p. 663, n. 3 (1790); *Bonn. Tabl. Enc. Méth.* i. p. 167 (1790); *Cuv. Règn. An.* i. p. 463 (note) (1817); *Sonnini, N. D.* xxiii. p. 431 (1818); *Steph. Gen. Zool.* xiv. p. 310 (1826); *Ranz. Elem.* iii. pt. ix. p. 311 (1826); *Cuv. Règn. An.* 2nd ed. i. p. 498 (note) (1829); *Less. Tr. d'Orn.* p. 11 (1838); *Strickl. & Melv. Dodo &c.* p. 21 (1848); *Bp. Consp. Av.* ii. p. 2 (1854); *id. Compt. Rend.* xliii. p. 840, n. 5 (1856); *Bolle, J. f. O.* 1856, p. 325; *Rchnb. Tauben*, i. p. 128 (1862).

is contained in a journal kept by Benj. Harry, now in the British Museum (MSS. Addit. 3668, 11. D.).

Besides a great number of bones, which have been discovered at different times, and especially by Mr. George Clark, of Mauritius, in 1865, there are a few scattered relics of this bird—a head and a foot at Oxford, a perfect head at Copenhagen, and a foot in the British Museum.

a. Picture made in Holland from a living bird, probably by Roland Savery, formerly belonging to Sir Hans Sloane, and afterwards the property of G. Edwards.
b, *c*, *d*. Three casts of the head in the University Museum of Oxford.
e. Foot, figured by Mitchell in the 'Genera of Birds,' pl. 120, and by Strickland and Melville, 'The Dodo,' pl. vi.
f. Skeleton, nearly complete, described and figured by Strickland and Melville, *op. cit.* pls. viii., ix., x., xii., and xiii.
g. Cast of the osseous head in the Copenhagen Museum.
h. Cast of the upper mandible and part of the skull in the Royal Museum of Prague.
i. Cast of the bones of the foot in the University Museum of Oxford.
k. Several dorsal vertebræ.
l. Portion of the cranium cut in half through its length.
m. Distal portions of the upper osseous bill and of the lower mandible.
n–*q*. Complete lower mandible and fragments.
r. Nine ribs.
s. Sternum cut transversely.
t, *u*. Two coracoids with the scapulæ.
v. Right coracoid with the corresponding half of the furculum.
w. Right coracoid.
x. Left scapula.
y. Half of a furculum.
z, *a'*, *b'*. Right and left humerus and fragment.
c'. Two radia.
d', *e'*. Pelvis.
f'–*i'*. Four right and left femora.
k'–*n'*. Tibiæ and fragment.
o', *p'*. Fibulæ.
q', *r'*, *s'*. Tarso-metatarsi.
t'. Miscellaneous bones, Mare aux Songes.

Materials partly described and figured by Sir R. Owen (Tr. Zool. Soc. vi. pp. 49–54, pls. 16–23).

Purchased of Mr. H. H. Slater.

2. Didus (?) borbonicus.

Great Fowl, *Tatton, Voy. of Castleton, in Purchas's Pilgrimage*, ed. 1625, i. p. 331 (Bourbon, Réunion); *Strickl. & Melv. Dodo etc.* p. 57 (1848).

Dod-eersen, *Bontekoe, Journ. ofte gedenck. beschr. van de Oost-Ind. Reyse, Haarlem*, 1646, p. 6, *Rotterdam*, 1647, p. 7, *Amsterdam*, 1648, p. 5, 1650, p. 5, *Utrecht*, 1649, p. 6; *Strickl. & Melv. op. cit.* p. 57 (1848).

Oiseau Solitaire, *Carré, Voy. des Ind. Orient.* i. p. 12 (1699).

Solitaire, *D. B.* (*Du Bois*), *MS., Journ. et Rel. des Voy. aux iles*

Daufine ou Madag. et de Bourbon ou Mascarenne, 1669; *Strickl. P. Z. S.* 1844, p. 78; *Strickl. & Melv. op. cit.* p. 58 (1848); *Bolle, J. f. O.* 1856, p. 322; *Dubois, Ann. Sc. Nat.* (5) vi. p. 43 (note) (1866).

Apterornis solitarius, *de Selys, Rev. Zool.* 1848, p. 293.

Didus apterornis, *Schleg. Ook een Wordje over den Dodo*, p. 15, f. 2 (1854); *id. Over de Struisart. Vög. in Album der Natuur*, 1854, xi. p. 323, f. in p. 21.

Pezophaps borbonica, *Bp. ex Strickland, fide Bp. Consp. Av.* ii. p. 2 (1854).

Ornithaptera borbonica, *Bp. Consp. Av.* ii. p. 2 (1854); *id. Compt. Rend.* xliii. p. 840, n. 3 (1856).

Didus ineptus, *Tegetm.* (*nec Linn.*) *P. Z. S.* 1866, p. 201.

Didus sp., *A. Newt. P. Z. S.* 1867, p. 179.

Didine Bird of the Island of Bourbon (Réunion), *A. Newt. Tr. Zool. Soc.* vi. pp. 373–376, pl. 62 (1867) *.

Apterornis solitaria, *Milne-Edw. Ibis*, 1869, p. 272.

? Didus borbonicus, *Schleg. Mus. P.-B.* Struthiones, p. 3 (1873).

Solitaire of Réunion, *A. Newt. Enc. Brit.* ii. p. 732 (1875).

According to Prof. A. Newton :—

1st. The Didine bird of Bourbon in general shape resembled the true Dodo of Mauritius.

2nd. Its plumage was white, with some admixture of yellow; and

3rd. The first four primaries of the wings were not directed backwards, but downwards and forwards.

Mentioned by Tatton, Bontekoe, Carré, and Du Bois. Bontekoe gave a figure which, like a picture in the possession of Mr. C. Dare of Clatterford, and now deposited in a museum at Carisbrooke Castle, in the Isle of Wight, according to Prof. Newton represents the Bourbon Dodo.

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* "On a Picture supposed to represent the Didine Bird of the Island of Bourbon (Réunion)" (*l. c.*).

APPENDIX.

I have included in this Appendix the doubtful species of Pigeons, which have not yet been identified, and which I could not conveniently intercalate in the body of this volume; a few fictitious ones; and some which have been wrongly associated with the Pigeons.

1. Columba adfinis.

Columba adfinis, *Möhring, Av. Gen.* 103 (1752); *Wald. Ibis*, 1869, p. 326, note.

Apparently the same as *Cuculus brasiliensis*, Linn. S. N. i. p. 171, n. 18 (1766), a bird which has never been identified.

2. Columba asiatica.

Indian Pigeon, *Lath. Syn. Suppl.* i. p. 202, n. 60 γ (1787).
Columba asiatica, *Lath.* (*nec Müll.*, 1776) *Ind. Orn.* ii. p. 597, n. 14 (1790); *Bonn. Tabl. Enc. Méth.* p. 241 (1790); *Temm. Pig. et Gallin.* i. p. 467 (1813); *Steph. Gen. Zool.* xi. p. 53 (1819); *Vieill. N. D.* xxvi. pp. 348, 379 (1818); *Desm. Dict. Sc. Nat.* xl. p. 572 (1826); *Wagl. Syst. Av.* Columba, sp. dub. 2 (1827).
Treron? asiatica, *G. R. Gr. Gen. B.* ii. p. 467, n. 18 (1844).

"Length 11 inches; beak bluish at the base, towards the tip white; head ash-colour; neck pale yellowish green, lower part of the neck all round, the middle of the wing near the shoulders, and all the under parts, white; the whole of the outer edge of the wings and the quills black, with whitish edges; body above and tail greenish-ash colour; end of the tail dusky; legs bluish; claws black. Inhabits India." (*Latham.*)

Apparently a species of the Treronine subfamily, but not yet identified.

3. Columba australis.

Columba australis, *Chamisso* (*nec Linn.*) *in Kotzebue's Reise*, iii. p. 113 (from Radack or Marshall Islands) (1821); *G. R. Gr. List B. Trop. Isl.* p. 43 (1859); *Wiglesw. Ibis*, 1893, p. 211.

Probably the same as *Globicera oceanica*, the only Pigeon found in the Marshall Islands by Dr. Finsch.

4. Columba brunnea.

Columba brunnea, *Lath. Ind. Orn.* ii. p. 603, n. 38 (1790) (New Zealand); *Bonn. Tabl. Enc. Méth.* i. p. 244 (1790); *Temm. Pig. et Gallin.* i. pp. 375, 475 (1813); *Vieill. N. D.* xxvi. p. 347 (1818);

Steph. Gen. Zool. xi. p. 84 (1819); *Desm. Dict. Sc. Nat.* xl. p. 372 (1826); *Wagl. Syst. Av.* Columba, sp. dub. 6 (1827); *Bp. Consp. Av.* ii. p. 59 (1854); *G. R. Gr. Ibis*, 1862, p. 233 (note) (New Zealand).

Brown Pigeon, *Lath. Gen. Syn. Suppl.* ii. p. 267, n. 2 (1802).

Perhaps the same as *Hemiphaga novæ zealandiæ* (Gm.).

5. Columba cærulea.

Tlacahoilotl, *Hern. Hist. Nov. Hisp.* p. 46, cap. clix.
Columba cærulea mexicana, *Briss. Orn.* i. p. 139, n. 35 (1760).
Pigeon bleu du Mexique, *Buff. Hist. Nat. Ois.* ii. p. 525 (1771).
Blue Pigeon, *Lath. Syn.* ii. 2, p. 634, n. 28 (1783).
Columba cærulea, *Gm. S. N.* i. p. 776, n. 11 (1788); *Lath. Ind. Orn.* ii. p. 601, n. 31 (1790); *Bonn. Tabl. Enc. Orn.* p. 234 (1790); *Vieill. N. D.* xxvi. p. 345 (1818); *id. Enc. Méth.* i. p. 382 (1823); *Desm. Dict. Sc. Nat.* xl. p. 371, n. 111 (1826); *Wagl. Syst. Av.* Columba, sp. releg. 5 (1827); *Bp. Consp. Av.* ii. p. 59 (1854).

"Size of a domestic Pigeon. Head, neck, back, rump, upper tail-coverts and tibials blue; some red feathers on the head and neck, especially on the lower part of the latter; breast, abdomen, sides, wing-coverts, and under tail-coverts red; quills and tail-feathers blue; iris red, like the beak and feet. Inhabits Mexico." (*Translated from Brisson.*)

Apparently a fictitious bird.

6. Columba cærulea.

Columba cærulea, *Temm. & Knip* (*nec Gm.*), *Pig.* i. fam. seconde, pl. 37 (1808–11); *Temm. Pig. et Gallin.* pp. 290, 475 (1813); *Vieill. N. D.* xxvi. p. 345 (1818); *Steph. Gen. Zool.* xi. p. 87 (1819); *Desm. Dict. Sc. Nat.* xl. p. 341 (1826); *Wagl. Syst. Av.* Columba, sp. 55 (1827); *Rchnb. Syn. Av.* f. 1267 (1847) (*ex Temminck*); *Bp. Consp. Av.* ii. p. 59 (1859).
Oreopeleia cærulea, *Rchnb. Tauben*, i. p. 32, t. 225. f. 1267 (1862).
Geotrygon cærulea, *Gieb. Thes. Orn.* ii. p. 254 (1875).

No doubt a fictitious bird, coloured like a *Cotinga*, with the upper parts blue, throat and upper breast vinous, rest of the lower parts and a patch on the cheeks white.

Supposed to be from Bengal.

7. Columba cinerea.

Tourterelle cendrée de l'Isle de Luçon, *Sonner. Voy. Nouv. Guin.* p. 52, pl. 22 (1776); *Wald. Tr. Zool. Soc.* ix. p. 220 (1875).
Luzonian Turtle, *Lath. Syn.* ii. 2, p. 646, var. *c* (1783).
Columba cinerea, *Scop. Del. Flor. et Faun. Insubr.* ii. p. 94, n. 93 (1786) (*ex Sonnerat*).
Columba turtur, δ. Turtur luzoniensis, *Gm. S. N.* i. 2, p. 786 (1788).
Tourterelle de l'Isle de Luçon, *Bonn. Tabl. Enc. Orn.* p. 248, pl. 81. f. 4 (1790) (*ex Sonnerat*).
Columba turtur, δ, *Lath. Ind. Orn.* ii. p. 606 (1790); *Steph. Gen. Zool.* xi. p. 73 (1819).

Columba turtur, var. *b*, *Temm. Pig. et Gallin.* i. p. 479 (1813).
Tourterelle grise de l'Isle de Luçon, *Vieill. N. D.* xxvi. p. 381 (1818).
Columba turtur, var. δ, *Wagl. Syst. Av.* Columba, sp. dub. 9 (1827).
Columba phœnicorhyncha, *Wagl. Isis*, 1829, p. 745 (1829).
Turtur cinerea, part., *Bp. Consp. Av.* ii. p. 61 (1854); *Wall. Ibis*, 1865, p. 392; *id. J. f. O.* 1866, p. 283.
Turtur cinereus, *Rchnb. Tauben*, i. p. 70 (part.) (1862), ii. p. 174, *Novit. Suppl.* t. iii. f. 25 (1862); *v. Mart. J. f. O.* 1866, p. 24; *G. R. Gr. Hand-list*, ii. p. 238, n. 9312 (part.) (1870); *Gieb. Thes. Orn.* iii. p. 726 (1877).

Size of Tourterelle grise ensenglantée (*Phlogœnas cruenta*); head and neck clear grey; five or six feathers on the sides of the neck are edged with black; breast and belly vinous grey; quills black; wing-coverts black, edged with brownish yellow; upper tail-coverts black; under tail-coverts white; bill and iris carmine-red; feet vinous red. (*Translation.*)

Hab. Luzon.

A bird not yet satisfactorily identified, but, according to Lord Walden, "the diagnosis agrees fairly with *Columba picturata*, Temm., from which bird Sonnerat probably took his description."

Mr. Blyth ('Ibis,' 1870, p. 173) mentions having observed in the Leyden Museum a Dove labelled *Columba turtur* from the Philippines, "like *T. auritus*, but darker, the black predominating on the upper parts; lower tail-coverts white." Lord Walden (*l. c.*) asks if this can be *Columba cinerea*. I have not been able to find any mention of such a bird in the *Columbæ* of Schlegel's 'Muséum des Pays-Bas.'

8. Columba cristata.

Uncommon Bird from Malacca, *Badenach, Phil. Trans.* lxii. pp. 1–3, pl. i. (1772).
Lesser Crowned Pigeon, *Lath. Syn.* ii. 2, p. 622, n. 10, pl. 58 (1783).
Columba cristata, *Gm. S. N.* i. p. 774, n. 7 (with var. β) (1788); *Lath. Ind. Orn.* ii. p. 596, n. 10 (1790); *Wagl. Syst. Av.* Columba, note at the end (1827).

It is *Rollulus rouloul* from Malacca, Sumatra, and Borneo.

9. Columba dominicensis.

Tourterelle de St. Domingue, *D'Aubent. Pl. Enl.* 487.
Columba dominicensis, *Lath. Ind. Orn.* ii. p. 615, n. 79 (1790); *Bonn. Tabl. Méth.* i. p. 256 (1790); *Temm. & Knip, Pig.* i. fam. seconde, p. 113, pl. 51 (1808–11); *Temm. Pig. et Gallin.* i. pp. 361, 489 (1813); *Vieill. N. D.* xxvi. p. 385 (1818); *Steph. Gen. Zool.* xi. p. 100 (1819); *Desm. Dict. Sc. Nat.* xl. p. 359 (1826); *Less. Compl. de Buff., Ois.* viii. p. 61 (1837); *id. op. cit.* 2nd ed. p. 285 (1838); ? *Württ. Naumannia*, 1852, 2, p. 53 (Haiti and Cuba!!); *Bp. Consp. Av.* ii. p. 86 (1854) (fictitious bird); *id. Compt. Rend.* xliii. p. 946 (1856); *Cab. J. f. O.* 1856, p. 111; *Gundl. J. f. O.* 1861, p. 416, 1862, p. 191.
Saint-Domingo Pigeon, *Lath. Syn. Suppl.* ii. p. 271, n. 12 (1802).
Columba annulata, *Wagl. Syst. Av.* Columba, sp. 101 (1827).

Peristera dominicensis, *G. R. Gr. Gen. B.* ii. p. 476, n. 19 (1845); *Rchnb. Syn. Av.* p. 1438 (1847).
Uropeleia dominicensis, *Rchnb. Tauben*, i. p. 18, t. 258. f. 1438 (1862) (*ex D'Aubenton*); *G. R. Gr. Hand-list*, ii. p. 240, n. 9349 *a* (1870).
Chamæpelia dominicensis, *Gieb. Thes. Orn.* i. p. 633 (1872).
Coturnicœnas dominicensis, "*Gr.*" (*errore*), *Gieb. Thes. Orn.* i. p. 633 (1872).

"Bill black; feet red; upper parts ash-grey, back undulated; wings with several black spots on the coverts; breast vinous; forehead, sides of the head, and upper collar on the neck white; a band on the anterior part of the crown, another from the nostrils under the eyes, broadened behind (on the ear-coverts), and a collar round the median part of the neck, black; underparts grey; under tail-coverts white; tail grey, the outer feathers white. Length 11 inches." (*Translation of Latham's descr.*)

Hab. St. Domingo.

The bird figured by D'Aubenton and described after his plate by Latham has not again been found. Knip's plate is rather different. Bonaparte suspects that this is a fictitious bird, the head of which is probably that of *Charadrius virginianus*! What the bird mentioned under the same name by Prince von Württemberg, as common in Haiti, but rare in Cuba, can be is difficult to say.

10. Columba fusca.

Columba fusca, *Gm. S. N.* i. p. 773, n. 4 (1788) (Carthagena) (*ex Jacq. Beytr.* p. 33, n. 27, pt.); *Vieill. N. D.* xxvi. p. 346 (1818); *Desm. Dict. Sc. Nat.* xl. p. 371 (1826); *Wagl. Syst. Av.* Columba, sp. releg. 8 (1827).

Size of a Turtle Dove, entirely brown, but the neck and breast with scale-like black and white marks.

Probably the same as *Scardafella squamata*.

11. Columba hoilotl.

Hoilotl, *Hernand. Hist. Nov. Hisp.* p. 27, cap. lx.
Columba montana mexicana, *Briss. Orn.* i. p. 130, n. 28 (1760).
Columba hoilotl, *Gm. S. N.* i. p. 777, n. 12 (1788); *Lath. Ind. Orn.* ii. p. 601, n. 30 (1790); *Bonn. Tabl. Enc. Méth.* i. p. 243 (1790); *Vieill. N. D.* xxvi. p. 353 (1818); *Desm. Dict. Sc. Nat.* xl. p. 373 (1826); *Wagl. Syst. Av.* Columba, sp. releg. 4 (1827); *Bp. Consp. Av.* ii. p. 59 (1854).

According to Wagler (Isis, 1831, p. 519) this is identical with *Columba marginata*, auct., but the American ornithologists suspect the identity of *C. hoilotl* with *Melopelia leucoptera*.

12. Columba infuscata.

Columba infuscata, "*Licht.*," *Rchnb. Syn. Av.* t. 226. f. 1271 (1847).

The above quoted figure has not been identified, even by Reichenbach; it looks to me like *Columba vitiensis*.

13. Columba maculata.

Spotted Green Pigeon, *Lath. Syn.* ii. 2, p. 642, n. 37 (1783); *Lath. Gen. Hist. of B.* viii. p. 23, pl. 117 (1823).

Columba maculata, *Gm. S. N.* i. p. 780, n. 52 (1788); *Lath. Ind. Orn.* ii. p. 605, n. 43 (1790); *Bonn. Tabl. Enc. Méth.* p. 239 (1790); *Temm. Pig. et Gallin.* i. p. 465 (1813); *Vieill. N. D.* xxvi. p. 367 (1818); *Desm. Dict. Sc. Nat.* xl. p. 375 (1826); *Wagl. Syst. Av.* Columba, sp. dub. 1 (1827).

Columba picazuro (*errore*), *Steph. Gen. Zool.* xi. p. 46 (1819).

Ptilinopus? maculatus, *Steph. Gen. Zool.* xiv. p. 279 (1826).

Ptilonopus maculatus (*Gm.*), *Swains., G. R. Gr. Gen. B.* ii. p. 467, n. 20 (1844).

"Length twelve inches. Bill black, tipped with pale yellow: general colour of the plumage dark green, and glossy, the head and neck are darker than the rest, and of one plain colour; the feathers of the neck long and narrow, like the hackles of a Cock; every feather of the wings and scapulars tipped with a spot of very pale cinereous white, with a point running upwards, somewhat triangular; quills and tail black: the feathers of the first tipped with cinereous white, those of the last with ferrugineous white, and even at the end: belly, thighs, and vent dusky black; the legs are brown, and the shins covered half way with downy feathers; claws black." (*Latham.*)

Wagler thought that this bird may have been a young of *Calœnas nicobarica*.

14. Columba malabarica.

Tourterelle de la côte de Malabar, *Sonner. Voy. Ind. Or.* ii. p. 180 (1782).

Malabar Turtle, *Lath. Syn.* ii. 2, p 652, n. 48 (1783).

Columba malabarica, *Gm. S. N.* i. p. 779, n. 50 (1788); *Lath. Ind. Orn.* ii. p. 609, n. 57 (1790); *Temm. Pig. et Gallin.* pp. 376, 483 (1813); *Vieill. N. D.* xxvi. p. 379 (1818); *Steph. Gen. Zool.* xi. p. 86 (1819); *Desm. Dict. Sc. Nat.* xl. p. 376 (1826); *Wagl. Syst. Av.* Columba, sp. dub. 11 (1827).

Columba suratensis, *b.*, *Bonn. Tabl. Enc. Méth.* p. 237 (1790).

Apparently the same as *Turtur suratensis*.

15. Columba meridionalis.

Southern Pigeon, *Lath. Syn. Suppl.* ii. p. 270, n. 7 (1801) (New Holland).

Columba meridionalis, *Lath. Ind. Orn. Suppl.* p. lx, n. 4 (1801); *Vieill. N. D.* xxvi. p. 346 (1818); *id. Enc. Méth.* i. p. 376 (1823); *Desm. Dict. Sc. Nat.* xl. p. 371 (1826) (doubtful species); *Wagl. Syst. Av.* Columba, sp. dub. 16 (1827); *Less. Compl. de Buff., Ois.* viii. p. 74 (1837); *id. op. cit.* 2nd ed. p. 289 (1838); *Bp. Consp. Av.* ii. p. 97 (1854).

Phaps meridionalis, *G. R. Gr. fide Bp. Consp. Av.* ii. p. 91 (1854); *Reichb. Tauben*, i. p. 39 (1862); *G. R. Gr. Hand-list*, ii. p. 245, n. 9430 (1870).

Phaps histrionica, part., *Gieb. Thes. Orn.* iii. p. 89 (1877).

"Size of a Turtle; length ten inches; general colour of the plumage deep reddish brown, a little paler on the breast; from thence all beneath is pale reddish white; the eye is brown, placed in a bare bluish-white skin; the bill black, a trifle bent at the end; the nostrils apparent, but not protuberant; the quills are deep brown; on the lesser coverts, three or four marks of blackish purple; tail short, cuneiform, the feathers rather pointed at the ends; the two middle feathers black-brown, with a bar of black about three quarters of an inch from the end; the others brown, but white for about one inch next the tip, the two colours joining in a lunular form; the outer feathers white on the outer web the whole of its length; legs red." (*Latham.*)

Hab. New Holland.

Latham says he had seen a specimen in Mr. Swainson's collection, and that it seemed to be much allied to the "Martinico Pigeon." Perhaps it was a species of the genus *Phaps* badly described.

16. Columba mexicana.

Chehoilotl, *Hern. Hist. Nov. Hisp.* p. 42, cap. cxxxii.
Columba mexicana, *Briss. Orn.* i. p. 99, n. 10 (1760); *Gm. S. N.* i. p. 777, n. 43 (1788); *Lath. Ind. Orn.* ii. p. 601, n. 28 (1790); *Vieill. N. D.* xxvi. p. 353 (1818); *Desm. Dict. Sc. Nat.* xl. p. 373 (1826); *Wagl. Syst. Av.* Columba, sp. releg. 2 (1827); *Bp. Consp. Av.* ii. p. 59 (1854).
Pigeon du Mexique, *Buff. Hist. Nat. Ois.* ii. p. 525 (1771).
Mexican Pigeon, *Lath. Syn.* ii. 2, p. 633, n. 25 (1783).

Brown, except the breast and tips of the wings, which are white; eyelids red, iris black; feet red. Inhabits Mexico. (*Translation from Brisson.*)

Utterly unknown.

17. Columba miniata.

Grande Tourterelle de la Chine, *Sonner. Voy. Ind. Or.* ii. p. 178 (1782); *Wald. Tr. Zool. Soc.* ix. p. 220 (1875).
Columba miniata, *Temm. Pig. et Gallin.* i. pp. 369, 460 (1813) (*ex Sonnerat*); *Vieill. N. D.* xxvi. p. 368 (1818); *Steph. Gen. Zool.* xi. p. 42 (1819); *Desm. Dict. Sc. Nat.* xl. p. 374 (1826); *Wagl. Syst. Av.* Columba, sp. dub. 13 (1827).
Turtur cinerea, *Bp.* (*nec Scop.*) *Consp. Av.* ii. p. 61 (1854).
Turtur miniatus, part., *Bp. Compt. Rend.* xl. p. 16 (1855); *id. Coup d'œil Ordre Pig.* p. 29 (1855).
Turtur cinereus (part.), *Bp. Compt. Rend.* xl. p. 219, n. 177 (1855); *id. Coup d'œil Ordre Pig.* p. 37, n. 177 (1855); *Rchnb. Tauben*, i. p. 76 (pt.) (1862); *G. R. Gr. Hand-list*, ii. p. 238, n. 9312 (pt.) (1870); *Gieb. Thes. Orn.* iii. p. 726 (pt.) (1877).

Size of the Common Pigeon; head grey; upper part of the neck, belly and abdomen of a clear greyish red; posterior part of the neck and back deep violet-purple; feathers that cover the sides of the neck are scalloped in the centre, and terminated with a greyish-red band; small feathers on the shoulders of a deep rosy or chestnut

colour; coverts of an earthy brown; rump of a grey-lilac; middle tail-feathers of a dusky black; the lateral ones black for half their length, and tipped with white; beak yellowish; irides red; feet brown. (*Translation.*)

Hab. China.

Probably the same as *Turtur rostratus*.

18. COLUMBA NÆVIA.

Hoilotl *seu* Columba, *Hern. Hist. Nov. Hisp.* p. 26, cap. lvi.
Œnas mexicana, *Briss. Orn.* i. p. 100, n. 11 (1760) (*ex Hernandez*).
Pigeon sauvage du Mexique, *Buff. Hist. Nat. Ois.* ii. p. 525 (1771).
Columba nævia, *Gm. S. N.* i. p. 777, n. 42 (1788); *Lath. Ind. Orn.* ii. p. 601, n. 29 (1790); *Bonn. Tabl. Enc. Méth.* p. 242 (1790); *Vieill. N. D.* xxvi. p. 365 (1818); *Desm. Dict. Sc. Nat.* xl. p. 375 (1826); *Wagl. Syst. Av.* Columba, sp. releg. 3 (1827); *Bp. Consp. Av.* ii. p. 59 (1854).

According to Wagler (Isis, 1831, p. 519), Hernandez's *Hoilotl* is identical with *Columba marginata*, auct.

19. COLUMBA PALLIDA.

Columba pallida, *Lath. Gen. Syn. Suppl.* ii. p. 270, n. 8 (1802); *Vieill. N. D.* xxvi. p. 346 (1818); *id. Enc. Méth.* i. p. 376, n. 80 (1823); *Desm. Dict. Sc. Nat.* xl. p. 371 (1826); *Wagl. Av. Syst. Nat.* Columba, sp. dub. 7 (1827); *Bp. Consp. Av.* ii. pp. 59, 95 (1854).

The bird described by Latham is a *Cacomantis* (cf. Salvadori, Orn. Pap. e Mol. i. p. 331).

20. COLUMBA PYRRHOPTERA.

Tourterelle à ailes rousses, *Vieill. Enc. Méth.* i. p. 387 (1823).
Columba pyrrhoptera, *Vieill. ibid.* (1823) (Tripoli and Portugal).

"Front, gorge, devant du cou et dessous du corps, d'un gris-vineux; dessus d'un gris rembruni; dessous des ailes, roux; bec noir; pieds rouges." (*Vieillot.*)

"Cette espèce, qui est très-commune à Tripoli en Afrique, et qu'on voit quelquesfois en Portugal, a le front, le sinciput, la gorge, le devant du cou et les parties postérieures, d'un gris-vineux, qui s'éclaircit sur le ventre et les couvertures supérieures de la queue; le reste des parties supérieures, les ailes et les deux pennes intermédiaires de la queue sont d'un gris rembruni; les autres pennes caudales, noires et terminées de blanc; le bord intérieur et le dessous des pennes alaires, d'un beau roux, de même que toutes leurs couvertures inférieures." (*Vieillot.*)

21. COLUMBA ROSEA.

Columba rosea, *Miller, Cimel. Phys.* p. 105, t. 59 (1796); *Wagl. Syst. Av.* Columba, sp. dub. 14 (1827); *Bp. Consp. Av.* ii. p. 59 (1854).

"This beautiful bird, which is a native of India, is about the

size of a small pigeon. Its general hue is a rich sanguine rose colour; the abdomen and uropygium paler than the other parts. The tail and wing-feathers are deep brown; the bill and legs yellow-brown; the orbit mark, or part in which the eye is placed, is white, imbedded on the fore part with black, which colour runs just over the cere, so as to form a kind of black capistrum or band in front; the irides are yellow." (*Miller.*)

Dr. Sharpe is of opinion that the plate is no doubt copied from a native drawing.

22. Columba, sp.

Columba ænea, var. β, *Lath. Ind. Orn.* ii. p. 602 (1790) (Nova Zealandia); *G. R. Gr. Ibis*, 1862, p. 233, note (New Zealand).

Apparently the same as *Globicera myristicivora*, but the locality is wrong.

23. Columba sumatrensis.

Columba sumatrensis, *Hesler, J. f. O.* 1854, p. 287.

A living bird, kept in confinement, is mentioned by Hesler under the above name, together with *Columba suratensis*.

24. Columba surinamensis.

Tourterelle de Surinam, *Fermin, Descr. de Surin.* ii. p. 165.
Surinam Turtle, *Lath. Syn.* ii. 2, p. 647, n. 41 (1783).
Columba surinamensis, *Gm. S. N.* i. 2, p. 787, n. 67 (1788); *Lath. Ind. Orn.* ii. p. 607, n. 50 (1790); *Bonn. Tabl. Enc. Méth.* p. 252 (1790); *Temm. Pig. et Gallin.* i. p. 478 (1813); *Vieill. N. D.* xxvi. p. 386 (1818); *Steph. Gen. Zool.* xi. p. 75 (1819); *Desm. Dict. Sc. Nat.* xl. p. 372 (1826); *Wagl. Syst. Av.* Columba, sp. releg. 6 (1827).
Colombe Fermin, *Temm. Pig. et Gallin.* i. p. 375 (1813).

Ten inches in length; the beak is of a blue cast; the head and back are ash-colour; throat mixed green and black; the outer wing-feathers brown, and those of the middle ash-colour; the breast and belly whitish; legs red. Inhabits Surinam. (*Fermin.*)

An unidentified bird.

COTURNICŒNAS.

	Type.
Coturnicœnas, *Des Murs in Chenu's Enc. d'Hist. Nat., Ois.* vi. p. 50 (1853)	C. hottentota.

25. Coturnicœnas hottentota.

Colombi-caille, *Levaill. Ois. d'Afr.* vi. p. 83, pl. 283 (1808); *Sundev. K. Sv. Vet.-Ak. Handl.* 1857, p. 55, n. 283.

Columba hottentotta, *Temm. & Knip, Pig.* i. fam. trois. p. 26, pl. 15 (1808-11); *Temm. Pig. et Gallin.* i. pp. 429, 497 (1813); *Vieill. N. D.* xxvi. p. 403 (1818); *id. Enc. Méth.* i. p. 386 (1823); *Selb. Nat. Libr., Pigeons*, p. 198 (1835); *Less. Compl. de Buff., Ois.* viii. p. 14 (1837); *id. op. cit.* 2nd ed. p. 272 (1838); *Bp. Consp. Av.* ii. p. 69 (1854); *Layard, B. S. Afr.* p. 264 (1867); *Gieb. Thes. Orn.* i. p. 744 (1872).

Goura hottentota, *Steph. Gen. Zool.* xi. p. 131 (1819), xiv. p. 295 (1826).

Columba gularis, *Wagl. Syst. Av.* Columba, sp. 90 (1827).

Chamæpelia hottentota, *G. R. Gr. Gen. B.* ii. p. 475, n. 5 (1845); *Rchnb. Syn. Av.* f. 1421 (1847).

Coturnicœnas hottentota, *Des Murs, in Chenu's Enc. d'Hist. Nat., Ois.* vi. p. 51 (1853); *Rchnb. Tauben*, i. p. 81, t. 256. f. 1421 (1862); *G. R. Gr. Hand-list*, ii. p. 240, n. 9343 *a* (1870) (*Avis fictitia*).

General colour above deep red; forehead, chin, and throat white; underparts grey-brown, with scale-like markings of black, bordered with white. Length about five inches.

A fictitious bird of Levaillant, who states that it lives in Great Namaqua-land!

PSAMMŒNAS.

Type.

Psammœnas, *Blyth, J. A. S. B.* xiv. p. 860 (note) (1845). P. burnesii.

26. Psammœnas burnesi.

Psammœnas burnesii, *Blyth, J. A. S. B.* xiv. p. 860 (note) (1845) (Cabul); *id. Ann. & Mag. N. H.* xix. p. 101 (1847); *id. Cat. B. Mus. A. S. B.* p. 339 (1849); *G. R. Gr. List Gen. & Subgen. B.* p. 102, n. 1723 (1855); *Gieb. Thes. Orn.* iii. p. 315 (1871) (=T. risorius, *L.*!).

Psammœnas burnesi, *Bp. Compt. Rend.* xlii. p. 890, n. 138 (1856).

"A curious Pigeon, in the guise of a *Pterocles*, is figured among the drawings prepared under the superintendence of the late Dr. Alexander Burnes and Dr. Lord, marked *Fahktuk* (i. e. *Facktah* or Dove, *Hind.*), from Cabul, which should be sought for in the Scindian deserts. Total length about a foot, the wing six inches and a half, and tail pointed and *Pterocles*-like, extending nearly two inches beyond the tip of the wings; tarsi and toes, which, though rudely drawn, would appear to be those of an ordinary pigeon, naked, and of a pink colour. Bill dusky, being also apparently that of an ordinary pigeon, and rather slender. General colour light isabelline, with darker margins to the feathers of the mantle and wings; neck, breast, and underparts plain, the breast rufescent, and the belly and lower tail-coverts whitish; the outer tail-feathers would appear to have black tips; irides crimson. Should this hereafter be verified and constitute (as seems probable) a new genus of *sand-doves*, having the habits of the Gangas or Sand-grouse, it might bear the name *Psammœnas burnesi*." (*Blyth.*)

G. R. Gray (Hand-list, ii. p. 239, n. 9328) has doubtfully identified

P. burnesi with *Turtur risorius*, but previously both he and Bonaparte suspected that *P. burnesi* may have been a bird belonging to the *Pteroclidæ*.

RHAGORHINA.

	Type.
Rhagorhina, *Gloger, Gem. Hand- u. Hilfsb. d. Naturg.* i. p. 360 (1842)	R. auricularis.
Craspedœnas, *Rchnb. Syn. Av. Novit.* Columbariæ, t. 230 *b.* f. 3363 (1851); *id. Av. Syst. Nat.* p. xxv (1852)	R. auricularis.

27. Rhagorhina auricularis.

Columba auricularis, *Temm. & Knip, Pig.* i. fam. sec. p. 54, pl. 21 (1808–11); *id. Pig. et Gallin.* i. pp. 236, 465 (1813); *Vieill. N. D.* xxvi. p. 356 (1818); *Steph. Gen. Zool.* xi. p. 4 (1819); *Vieill. Enc. Méth.* i. p. 384, pl. 238. f. 2 (1823); *Desm. Dict. Sc. Nat.* xl. p. 329 (1826); *Cuv. Règn. An.* i. p. 492 (1829); *Less. Compl. de Buff., Ois.* viii. p. 10 (1837); *id. op. cit.* 2nd ed. p. 271 (1838); *Bp. Consp. Av.* ii. p. 47 (fictitia ex *C. livia*) (1854); *id. Compt. Rend.* xxxix. p. 1108 (1854); *id. Coup d'œil Ordre Pig.* p. 24 (1855); *Schleg. Mus. P.-B.* Columbæ, p. 65 (note) (1873).
Columba temminckii, *Wagl. Syst. Av.* Columba, sp. 40 (1827).
Rhagorhina auricularis, *Gloger, Gem. Hand- u. Hilfsb. d. Naturg.* i. p. 360 (1842).
Carpophaga? auricularis, *G. R. Gr. Gen. B.* ii. p. 469, n. 29 (1844).
Craspedœnas auricularis, *Rchnb. Syn. Av. Novit.* Columbariæ, t. 230 *b.* f. 3363 (1851); *id. Av. Syst. Nat.* p. xxv (1852); *G. R. Gr. Hand-list*, ii. p. 232, n. 9229 *a* (1870).
Columba (Craspedœnas) auricularis, *Rchnb. Tauben*, i. p. 56, t. 230 *b.* f. 3373 (1862).

White, with the quills and tip of the tail black, and with red and blue caruncles on the throat!

An artificial bird, made up with a skin of *C. domestica*.

28. Turtur lusitanus.

Portugal Dove, *Albin, Hist. of B.* ii. pl. 48.
Turtur lusitanus, *Briss. Orn.* i. p. 98 (1760).
Tourterelle de Portugal, *Buff. Hist. Nat. Ois.* ii. p. 556 (1771); *Vieill. N. D.* xxvi. p. 384 (1818).
Columba turtur γ, *Gm. S. N.* i. 2, p. 786 (1788); *Lath. Ind. Orn.* ii. p. 606 (1790).
Columba turtur, b, *Bonn. Tabl. Enc. Méth.* p. 248 (1790).
Columba turtur, var. a, *Temm. Pig. et Gallin.* i. p. 479 (1813).

Perhaps not different from the Common Dove (*Turtur turtur*).

29. Turtur sp.?

Columba turtur var. β, *Gm. S. N.* i. p. 786 (1788); ? *Lath. Ind. Orn.* ii. p. 606 (1790).

Apparently a species of Dove of the subgenus *Spilopelia*.

VERRULIA.

	Type.
Verrulia, *Flem. Philos. Zool.* ii. p. 232 (1822)	V. carunculata.
Creogenys, *Gloger, Gem. Hand- u. Hilfsb. d. Naturg.* i. p. 367 (1842)	V. carunculata.
Alectryopelia, *van der Hoev. Handb. d. Zool.* ed. 2, ii. p. 680 (1855).....	V. carunculata.

30. VERRULIA CARUNCULATA.

Colombi-Galline, *Levaill. Ois. d'Afr.* vi. p. 98, pl. 278 (1808); *Sundev. K. Sv. Vet.-Ak. Handl.* 1857, p. 55, n. 278.

Columba carunculata, *Temm. & Knip, Pig.* i. fam. trois. p. 19, pl. 11 (1808–11); *Temm. Pig. et Gallin.* i. pp. 415, 496 (1813); *Cuv. Règn. An.* i. p. 455 (1817); *Vieill. N. D.* xxvi. p. 394 (1818); *Steph. Gen. Zool.* xi. p. 123 (1819); *Vieill. Enc. Méth.* i. p. 383 (1823); *Desm. Dict. Sc. Nat.* xl. p. 303 (1826); *Wagl. Syst. Av.* Columba, sp. 41 (1827); *Cuv. Règn. An.* 2nd ed. i. p. 489 (1829); *Less. Compl. de Buff., Ois.* viii. p. 9 (1837); *id. op. cit.* 2nd ed. p. 271 (1838); *Bp. Consp. Av.* ii. p. 47 (1854) (fictitia ex *C. domestica*); *id. Compt. Rend.* xxxix. p. 1108 (1854); *id. Coup d'œil Ordre Pig.* p. 24 (1855); *Layard, B. South Afr.* p. 264 (1867); *Schleg. Mus. P.-B.* Columbæ, p. 65 note (1873).

Goura carunculata, *Steph. Gen. Zool.* xi. p. 123 (1819), xiv. p. 296 (1826).

Verrulia carunculata, *Flem. Philos. Zool.* ii. p. 232 (1822); *G. R. Gr. List Gen. B.* p. 58 (1840); *id. op. cit.* 2nd ed. p. 74 (1841); *id. Gen. B.* ii. p. 478 (1845); *Rchnb. Syn. Av.* ff. 1471–72 (1847); *G. R. Gr. Hand-list*, ii. p. 233, n. 9241 *a* (1870).

Geophilus carunculatus, *Selby, Nat. Libr., Pigeons*, p. 218 (1835).

Columba (Verrulia) carunculata, *Rchnb. Tauben*, i. p. 56, t. 263. ff. 1471-72 (1862).

Leaden grey, with white rump and fleshy caruncles on the throat. A fictitious bird, made up with a skin of *C. domestica*.

31. COLOMBICOLIN LAURE, *Less. Descr. Quadr.* 1850, p. 213 (*ex* Callao); *Bp. Consp. Av.* ii. p. 51 (1854); *Rchnb. Tauben*, i. p. 61 (1862).

"Similis *C. denisecæ*? Roseo-vinaceo griseoque varia; genis, jugulo, pectoreque rubro-vinaceis; abdomine crissoque albo-vinaceis; colli lateribus æneo-violaceis; uropygio resplendente (!); alarum maculis chalybeis sparsis; pedibus rubris." (*Bp.*)

Possibly a *Zenaida*, but the description is insufficient to identify the species.

32. LARGE DEEP-BLUE PIGEON, *Bougainv. Voy.* (Engl. ed.) p. 247 (Otaheite); *Less. Voy. Coq.* i. p. 299 (Otaheite) (1826); *G. R. Gr. List B. Trop. Isl.* p. 43 (1859).

Probably *Globicera wilkesi*.

33. VERY LARGE PIGEON FROM LORD HOWE'S ISLAND, *Phillips, Bot. Bay*, p. 225; *G. R. Gr. Ibis*, 1862, p. 232 (note).

34. Pigeon of New Zealand with "the head and neck white, the former crested," *Percy Earl, Voy. Ereb. & Terr., Birds*, p. 10 (1844); *G. R. Gr. Ibis*, 1862, p. 233 note.

35. Pigeon from Xiengmai (Siam), *Schomb. Ibis*, 1864, p. 250.
Siamese Pigeon, *Blyth, Ibis*, 1867, p. 149.

"There was another handsome Pigeon at Xiengmai, certainly dressed in less vivid colours than the preceding (*Treron phœnicoptera*=*Crocopus viridifrons*), but much larger in size. The head, neck, and rump are of a pale Indian red; on both parts of the neck there are a number of small feathers, black at their base, light blue at their upper edge, which, according as the light falls upon them, shine more or less brightly. The mantle is black, the feathers composing it being edged with Indian red, extending thence to the coverlets of the wing; the anterior part of the mantle is of a slate-blue, and the feathers approaching the tail increase in depth of colour, their edges being a shade lighter."

Hab. Siam.

Apparently a bird allied to *Columba pulchricollis* or *C. elphinstonei*.

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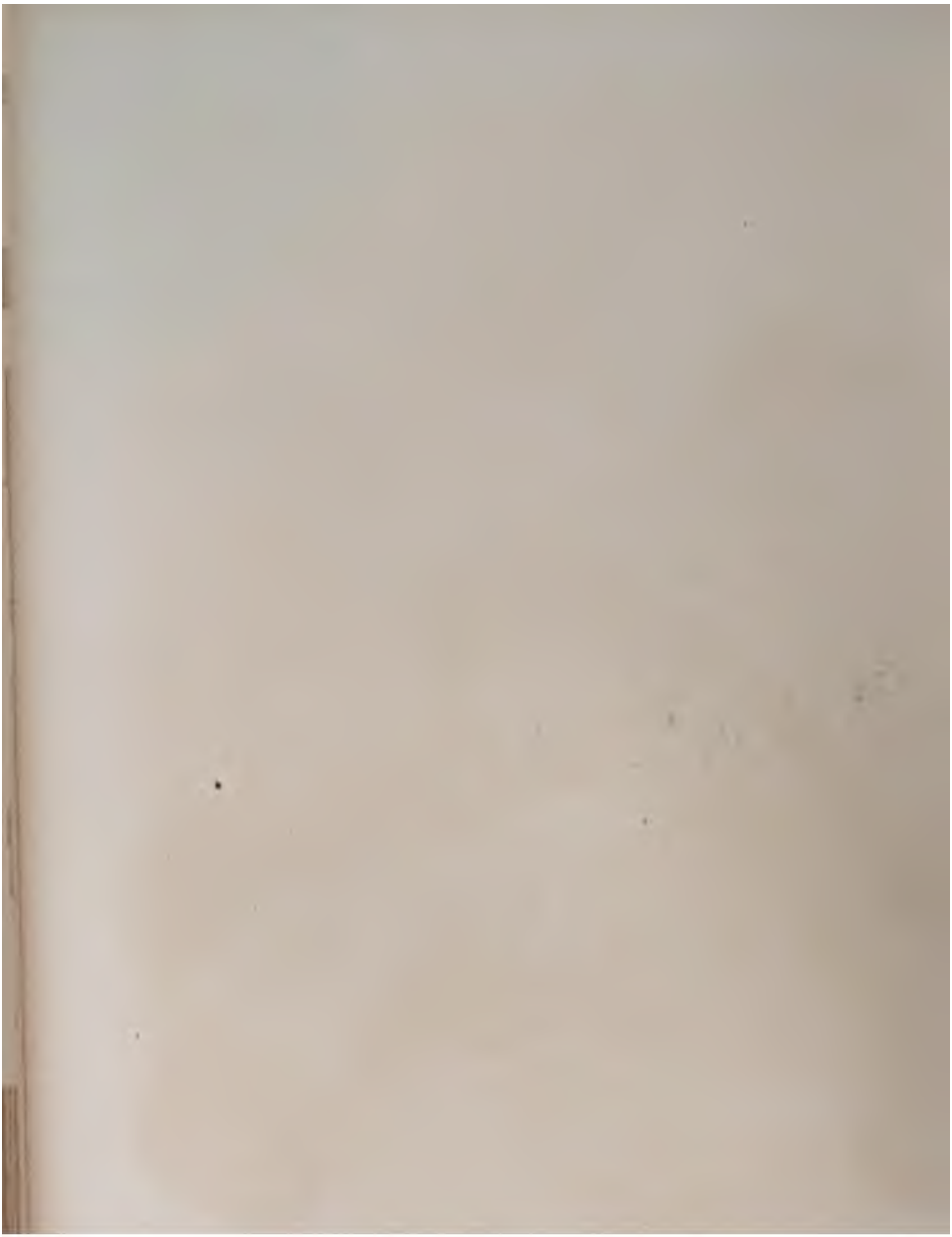

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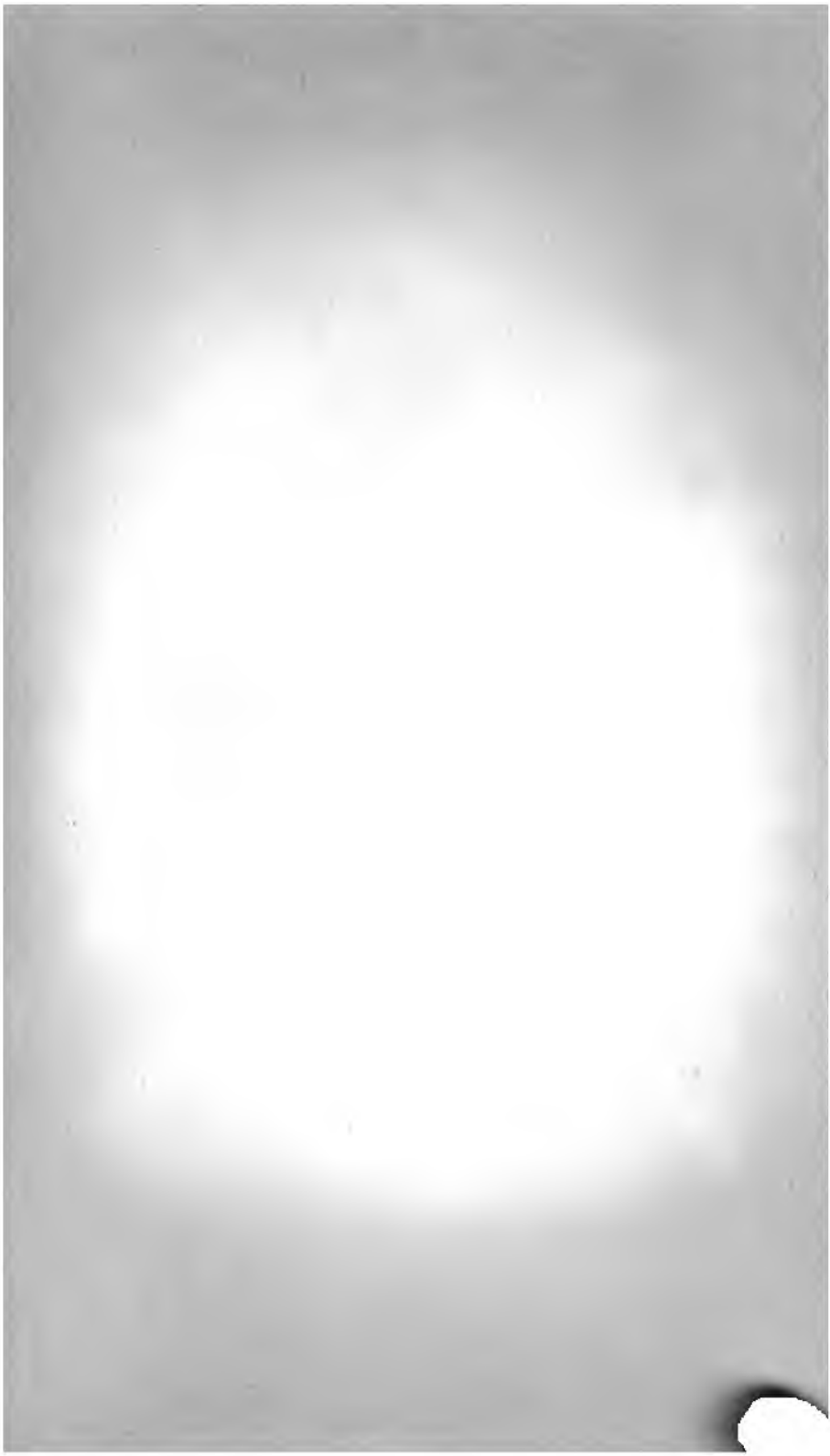

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